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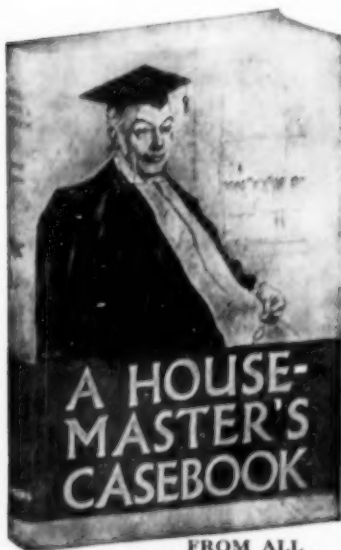
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Two Old Friends

HUGH QUINN

SOJER SANDY and Paddy McCann were close friends and lived in the same street in houses exactly opposite. The street was so narrow that it was possible for them, standing at their own doors, to carry on a conversation without raising their voices.

Sometimes they varied the monotony, when the weather was fine, by sitting out on the window-sills in stockinged soles and shirt sleeves, grunting contentedly as they puffed away at their old clay pipes with tin tops. They spoke but little while smoking. But sometimes their pipes would not draw, had to be scraped out, fresh tobacco cut and mixed with the residuum carefully deposited on the window-sill, and the pipes relit. During this languid ritual they resumed their talk on the trivial events of the passing day.

At times their wives would appear and, ignoring the talk of the men, speak of matters peculiar to the distaff side. Of the scandalous price of things, for instance. The best English coal was up to a shilling a bag, and Lough Neagh pullans, but lately three ha'pence a dozen, had insidiously crept up to threepence.

Propinquity, cemented by habit, is the basis of most friendships with simple folk having the same tastes, opinions, and prejudices. But

the friendship of Sojer Sandy and Paddy McCann was more selective.

As boys they had been attracted towards each other, though living streets apart, when they first met as rival captains of opposing clans. Strange to say, this was the beginning of a lifelong friendship, interrupted, however, by an interval of many years, and later by a lesser interval, the events of which belong to the climax of our story.

BOTH, being bright imaginative boys, had grown tired after a time of the unseemly noise and brawling of gang warfare and had thought of substituting for the crude rowdiness of street urchins an ordered plan of campaign where events would happen according to schedule.

At an extraordinary meeting of the two clans, held in a gateway, Sandy (he had not yet earned the title 'Sojer') and Paddy McCann, after previous connivance, proposed that henceforth gang warfare would be conducted according to the rules of military strategy, with token casualties to represent the maimed and the dead.

Paddy, treading warily on dangerous

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ground, suggested a battle after the fashion of the Sham Fight. The children had often listened to Scholar Dan, sitting on a huge stone outside his own door, on a sunny morning in July, reading a newspaper report of that famous battle. They had noted, too, the tone of regret in Dan's voice, and the disappointed looks on the faces of their listening elders, when the battle petered out to anticlimax—not a single Orangeman dead, or even wounded! This was the type of warfare best suited to our two pacifist leaders.

But as usual when people meet to agree on some project or scheme, disagreement is bound to ensue. Paddy had suggested, as leader of his clan, that he should adopt the role of Robert Emmet and his followers become the men of 'Ninety-Eight. On the other hand, Sandy could transmute himself to the glorious and immortal King William (thus did the deft Paddy sugar-coat the pill) and his adherents suffer a sea-change to Orangemen.

Sandy, of an easy-going nature, agreed to the proposal. Besides, the uniform intrigued him. He had often seen, on the gable-end of houses, King William in the glorious panoply of war, mounted on a white steed, his sword poised ready for combat. Already he was thinking vaguely of a coalman he knew who owned a white horse.

But there were murmurs of disapproval from the rank and file of his adherents. They did not object to the anachronism, which they did not perceive, but were sceptical of the maxim of the Bible, of which they were ignorant, that man, by thinking, could not add a cubit to his stature. Something was bound to stick, they thought. In punishment of their sin they might even remain Orangemen for the rest of their lives. One boy remembered reading a story of a self-willed boy who wished to become a dog, had his wish gratified, but when he was changed back found to his horror that he could not speak, but only bark like a dog. No, it was too dangerous.

But Sandy came to the rescue. 'I have it,' he cried. 'Do ye mind the play we saw in St Mary's Hall—Robert Emmet or the Pikemen of 'Ninety-Eight?'

They all remembered it well. It was a grand play, but with a sad ending.

'Well,' continued Sandy, 'I will be Major Sirr of the British Army and these—he indicated his henchmen—will be the redcoats.'

That was better, the children thought. Major Sirr and his redcoats were dead and gone, inert and harmless now in the faded pages of musty old volumes. But the Orangemen were very much alive, and not to be trifled with, even in thought!

THE proposal of Sandy, therefore, was agreed to. And so night after night mysterious figures prowled about the streets, armed to the teeth with the lethal weapons of childhood. There were concentrations of troops up an entry, under the command of Sandy. Nervously they fingered their cartridge-belts, composed of corks fastened together with strings, ready to ambush an unwary enemy.

Paddy McCann, dressed in his father's outworn inside drawers to represent the skin-tight pantaloons of Robert Emmet and in an old swallow-tail coat much too large for him, stood a few streets apart, with arms folded, as Robert Emmet had stood in the dock. A toy sword dangled, superfluous, at his side. It was not the business of a general to fight, but to think.

'Men of 'Ninety-Eight'—the words came sharp and decisive—the enemy is encamped in that entry. Cut off his retreat, attack him in the van, and call on him to surrender.' Thus spoke the bold Robert Emmet, *alias* Paddy McCann.

And in the entry Major Sirr, *né* Sandy, swathed in an old red-flannel petticoat to represent the redcoats, addressed his men: 'Soldiers of the king, the day is lost! We are surrounded. To save bloodshed we must surrender.'

After some parley, Major Sirr advanced, his crestfallen warriors behind him. Presenting his sword to Robert Emmet, who had adroitly shifted from the rear to the head of his troops, he said simply: 'Major Sirr at your service, General.'

'You are a brave man, sir,' said Robert Emmet, unconscious of the pun, and handed him back his sword.

It must not be supposed that Paddy was a fanatic (that came later), or that Sandy, though easy-going, was a fool. They knew that soldiers, like people, cannot be fooled all the time. They had to ring the changes on victory. And so, coming home one night from the old Theatre Royal, where they had gone in hidlance to see *A Royal Divorce* and study

TWO OLD FRIENDS

the technique of war, they planned the next campaign.

Robert Emmet, after marching and counter-marching his men, being weary for the want of a sleep (*vide* the Battle of Ballynahinch), would lead his men into a *cul-de-sac* and there suggest a bivouac. And then Major Sirr and his redcoats would surprise the sleeping warriors—with the inevitable surrender.

Everything happened to schedule. Robert Emmet, yielding to the varying fortunes of war, and picking his steps among the groaning dying and quiet, but alert, dead, advanced with sword in hand. Presenting it to the victorious major, he bowed and said: 'Robert Emmet, sir, at your service.'

And Major Sirr, with the intonation of a child who repeats a passage learned by rote, replied: 'You are a brave man, Robert Emmet. I return your sword.'

BUT youth, that brief trickle of years, soon passes. Paddy and Sandy were now young men, combatants in the real battle of life, so different from the mimic warfare of the static past.

Sandy, good, easy man, standing at the corner of the street, fell for the wiles of a recruiting-sergeant. Waiving his claim to the rank of major, he enlisted as private in the old Royal Irish Rifles, and shortly afterwards was drafted to India. Paddy, seeing no chance of retaining his rank of general, thought he would try his luck in Glasgow, then the Mecca of the Belfast working-man. So they parted.

Now, after an interval of many years, the two friends are together again. Every Saturday afternoon Sandy and Paddy went to the same pub and spent the week's pocket-money in drink. They talked, as was natural for two old friends so long separated, of the days of their childhood, of striking incidents of the past, of the mimic battles of long ago. When they got to the maudlin stage they clasped hands, and even addressed each other as Robert Emmet and Major Sirr respectively.

But the course of friendship, like that of true love, never did run smooth. Paddy thought he detected a subtle change come over Sandy. Of late he was less inclined to talk of the old battles of childhood days. Instead of the Battle of Antrim, fought bitterly for two whole nights running in a labyrinth of entries and narrow streets, he spoke of his exploits in the Boer War. He would talk of Majuba Hill

in preference to the Battle of Ballynahinch, their masterpiece of strategy. He told with masterly detail of skirmishes with the hill-tribes of India, but was silent on the glories of Vinegar Hill. Paddy saw to his dismay his old friend, Major Sirr, fade before his eyes like a dissolving view at the old panorama, to be replaced by the image of Sojer Sandy, R.I.R., who had fought real battles for the oppressors of his own country.

Paddy had changed but little in the long years of his exile. In Glasgow he had lived in the Irish quarter, joined the local Hibernian club, attended the Irish wakes, and come back with the nebulous opinions of childhood distilled to venom by maturing years.

He was dismayed, then, at the change in his old friend. A discussion started in the pub, ending in recriminations, which they kept up on the way home. Their wives, awaiting the return of the roystering husbands, knew by the loud voices and gesticulations that something was wrong. Usually the pair were so quiet. They listened for a while with sullen, guarded neutrality, but when a group of children gathered round, they intervened.

'Here, you,' said Sandy's wife, gripping her husband by the arm, 'if ye fought in odd corners of the earth, there's no necessity to bring the fighting home to yer own dure-step.' And Sandy, like Hercules, the hero of a hundred fights, tamely submitted to the distaff yoke and was led home captive.

Paddy's wife was about to perform a like kind action to her husband, but he was inclined to be stubborn. She knew her man, however. 'All right, then,' she threatened, 'don't expect me, when ye waken in the morning, paichin' and groanin' for a curer, to go round rappin' at the side-dure of the pub, begging drink for ye.' The cold breath of wifely logic sobered Paddy a little, and he retired.

And thus our two old friends had their first row.

During the week, however, the pair of them came out to the window-sill as usual, smoking, but silent and ashamed. Paddy, who felt he was the aggressor, referred to the little fracas obliquely. 'Drink,' he remarked, breaking the silence, 'is a curse and a scandal. I propose we take the pledge at the next mission.'

Sandy, always easy-going, agreed.

But next Saturday came first, and they went round to the pub as usual. They spoke guardedly at first, to evade another row. But

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talk fell flat, so limited was the range of subjects. Paddy in drink could talk of nothing but the battles of 'Ninety-Eight, to his restricted view the vanishing-point in the perspective of his nation's history. And Sandy, though he had a wider range of subjects, in defence retorted with a description of his old campaigns. After a few drinks the inevitable happened—another row, which ended in the same ignominious fashion by the intervention of their wives.

ONE Saturday afternoon Paddy, dressed in a brand-new suit, waited at the door for Sandy to appear. He did—to the consternation of Paddy. Sandy was also wearing a new suit—with a difference. His breast was glittering with dangling medals; his hair plastered in peaks. His moustache, no longer drooping, had been waxed, the ends pointing and aggressive. He wore white gloves and sported a military cane—mementoes of his soldiering days. The easy-going civilian slouch had changed to alert military bearing. 'In the name of God, where are ye bound for?' Paddy asked him.

'To the annual reunion of my old regiment,' replied Sandy proudly, clicking his heels together, saluting and tapping his leg smartly with the cane.

'And what's the childer's bawbees at your breast?' pursued Paddy.

'Bawbees!' cried Sandy indignantly. 'Them, sir, are my service medals. This,' he said, caressing a medal with his fingers, 'is for service in the Boer War, and that one for bravery at Majuba Hill, and these for—'

But those dour custodians of the peace, their watching wives, intervened. Escorting their prisoners to the street corner, Abraham-like they suggested, rather pointedly, perhaps, that Paddy take to the left, his way to the pub, and Sandy go by the right, which led to Victoria Barracks.

That afternoon, alone in the pub, Paddy spent a miserable time. He felt the loss of his old friend, Major Sirr, who was now no more, and like Rachel he refused to be comforted. But he brightened up suddenly. He had just remembered—next Saturday was the annual reunion of the 'Ninety-Eight Club. The Invincibles they were called. He would resurrect the old green sash with golden fringes he had worn at the 'Ninety-Eight centenary in Glasgow. 'I'll let Sandy see

what it shows him,' he muttered to himself, unaware of the redundancy. After a few more drinks on his own he returned home 'painfully sober', as he expressed it.

In the kitchen that evening he stood peeping through the curtains, awaiting the return of Sandy. At the door stood his wife, her face impassive as granite.

Sandy came round the corner, staggering and happy, trying to recall the speech of the Colonel. "'Men of the regiment," sez he. "The Duke of Wellington," sez he. "And again I say to you, men of the regiment," sez he.' Then Sandy got stumped, and started to sing 'A Drummer Boy from Waterloo'.

At the door stood his wife, alert to the contingencies of battle. 'Eyes front!' she shouted, as he rolled his eyes in the direction of Mrs McCann. Poor Sandy, in the fuddled state he was in, thought he was back again in the army, and obeyed. 'Left turn, march!' Before he knew what had happened, he heard the street-door close with a bang, and found himself confined to barracks for the night. Sandy, in the garrulity of drunkenness, had often explained to his wife, an apt pupil, the minutiae of barrack life and discipline.

NEXT Saturday afternoon Paddy, dressed in full regalia, stood at the kitchen lookout, waiting for sight of Sandy. Tenderly he fingered the old green sash with golden fringes.

'What are ye waiting there for?' his wife demanded from the doorstep. 'Step out before he sees you. We want no mutiny here.'

'That's what I'm waiting for,' gaily replied Paddy, as Sandy appeared.

The two men met in the middle of the road. 'Sufferin' toastin' cats?' cried Sandy. 'What's this kerfuffle?' Sandy had come home from the army full of strange oaths. But under the expert tuition of his wife they had been whittled down to harmless, unmeaning jargon.

'We celebrate to-day,' said Paddy, 'the annual reunion of the Invincibles, dedicated to the men of 'Ninety-Eight.'

'Sitherin' magnesia,' exclaimed Sandy, 'do ye tell me that? And what's that big muffer doin' round yer neck?'

'Muffer!' repeated Paddy indignantly. 'That, sir,' he replied, caressing with loving hands his sash, 'that is my—'

But once again their wives had rung the bell

TWO OLD FRIENDS

on another round of the interminable conflict.

'Here you, Sandy,' said his wife, 'let the man go his way in peace.'

'Aye,' said the wife of Paddy, 'there's room for them both if they don't swell.'

It was now the turn of Sandy, as he drank alone in the pub, to mourn the loss of an old friend. Of a more reflective nature than Paddy, he tried to reason things out. Strange, he thought, that drinking, which ordinarily brought friends closer, was driving Paddy and him apart. In the canteen he remembered swearing fealty to drinking companions. In the morning, however, when they met going on parade, he passed them with indifferent stare. After drinking a few more pints, he gave up the problem and returned home.

To his surprise, his wife had in some stout. To his greater surprise, she pressed him to drink. Too ingenuous to suspect gifts from the Greeks, Sandy accepted the bait, and was soon fast asleep on the sofa.

Paddy came round the corner, staggering and happy. His fuddled mind was endeavouring to recapture the opening remarks of the chairman. "'Nationalists of West Belfast," sez he. "Aye, men of 'Ninety-Eight," sez he again. "Robert Emmet," sez he. "Again I say to you, men of 'Ninety-Eight," sez he. "Lord Edward Fitzgerald—" Then, like Sandy, Paddy was stumped, and, like Sandy, began to sing, not, of course, about the hated redcoats, but a song of his beloved 'Ninety-Eight—'The Bold Robert Emmet'. As he sang, he cast eyes across the street to see how Sandy was taking it. To his chagrin he saw the door shut and the blinds drawn. There was nothing to do, then, but take his wife's advice and go in and sleep it off on the sofa.

THIS strange friendship, vacillating between war and peace, continued for another year. But one Saturday afternoon a strange thing happened. By a coincidence the reunions for both men fell on the same day, and they met face to face. Too astonished to speak, they could only gaze at each other in awkward silence. The phrases they had rehearsed were now useless. Nothing happens to schedule in real life, both men thought—so different from their planned battles of long ago.

Perhaps it was thoughts like these that prepared them for the strange reconciliation. Sandy, standing to attention, was about to tap his trousers with the raised cane, when something stayed his hand. He gazed into the honest, fanatical eyes of Paddy and saw, not the mature man with provocative, flaunting sash, but his old boyhood friend of long ago, Robert Emmet. There he stood, dressed in the old inside drawers and the swallow-tail coat. 'Major Sirr at your service, Robert Emmet. I yield my sword,' said Sandy, presenting the cane.

Paddy, accepting the token weapon, tried to speak, but a lump rose in his throat. In a mist of tears which dimmed his sight he saw Sojer Sandy, R.I.R., fade before his eyes, as in the old dissolving views, and Major Sirr—good old Major Sirr—appear from the vanished past, swathed in the old red-flannel petticoat. 'I don't—think it's—my turn for victory,' Paddy faltered. 'I can't mind—it's so long ago, so long ago,' he repeated sadly.

'The victory is yours, General. I mind quite well,' said Sandy, lying with cheerful alacrity to conceal his emotion.

'You are a brave man, sir,' said Paddy, repeating the ancient phrase and the old unconscious pun. 'I return your sword.'

The two friends, arm in arm, walked up to the corner of the street, where their ways parted.

'Well, bye-bye for the present, Robert Emmet,' said Sandy to relieve the embarrassment of parting.

'So long, Major Sirr,' returned Paddy.

The two old friends shook hands, saluted, and went their ways.

The wives of the men, who had watched the proceedings from their doorsteps, gazed at each other in astonishment. It was some time before they could speak.

'What do you think of that for a carry-on?' asked the wife of Sandy.

'I'm past thinking, missus dear,' feebly replied Paddy's wife.

'Men are but childer at bottom,' remarked the first. 'One minute quarrelling and fighting, and the next licking thumbs.'

'Aye,' agreed the other, 'and, like childer, there's no accountin' for them.'

Sandy's wife did not reply, but nodded her head in resigned acquiescence.

Dawn Adventure

Butterfly-Hunting in French Guiana

WILFRED E. NORRIS

TWELVE miles up the Maroni River in French Guiana is St Laurent, the centre of the penal colony sometimes inaccurately referred to as 'Devil's Island'. Most of the white population is now composed of ex-convicts or *libérés*, and the occupation of many is the hunting and export of butterflies, of which some hundreds of thousands are caught and exported each year, to museums, collectors, and manufacturers who use them for decorative works of art. As the buying of these flies was the object of my visit, I wanted to see for myself how they are caught. 'You must meet Henri, then, the ace of all the hunters,' I was told by my Chinese merchant friend. 'I will send him to your hotel.'

Most *libérés* are emaciated, malaria-tainted men, listless and forlorn, with all hope long since dead, walking about like zombies. It was therefore a surprise when Henri, with upright bearing and alert movements, entered my hotel like a sergeant-major reporting to the orderly-room and introduced himself. With his sparse silver hair and waxed moustache, only his sunken cheeks showing the ravishes of tropical fevers, he still preserved an air of dignity and gentility after thirty-five years in the colony—almost a record.

As we sat on the balcony that evening enjoying our coffee and cognac by the light of the stars, Henri, in excellent English, although using the French idiom, which gave a quaint colourfulness to his phrasing, and in moments of excitement or stress reverting to his native tongue, explained the necessity for the careful preparation he had already carried out to ensure the success of this expedition. 'First one must find in the jungle a good locality near a stream or pond,' he said, 'and then prepare the ground by cutting with a machete

a clearing in the bush running from east to west, and about 60 yards long by 12 yards wide.' There was a pause while he twirled his moustache. 'Such an ideal locality I have found,' he added.

'Do you always work alone?' I asked.

'No, monsieur. My colleague who works with me, and shares the labour and reward of such enterprise, is unfortunately at present in the hospital, suffering from the effects of an encounter with a bad character known as Polish Pete.' He gave a sigh, and went on: 'So it has taken me twelve days to carry out this preparation on my own.'

There was a lull while Henri, sipping his cognac, seemed to be studying me over the top of his glass with his dark penetrating eyes. At last, with concern in his voice, he said: 'I must warn you, monsieur, there are many hazards in the jungle. Are you sure you wish to accompany me?'

'In towns and cities there are probably more killed daily on the roads than in the jungle,' I replied. 'I doubt if the risk is greater.'

'I was thinking more of the hazards engineered by man than of ordinary pitfalls,' he said. 'There are some who will resort to murder even to rob a hunter of his clearing, nicely prepared.' Then after further reflection he added: 'For several days I am sure I have been watched. You understand, monsieur?'

'All the more reason why I should accompany you,' I replied.

'Right! We rendezvous here at four in the morning. We must be at the clearing, which is about five kilometres in the depth of the jungle, before dawn,' he continued, his smile conveying to me that I was now his accepted friend: 'I must admit, monsieur, I shall be very glad of your company. Please bring a heavy stick.'

'I certainly will. But why is it necessary to stop so early?' I queried.

'Because, monsieur, the *Morpho Menelaus*, the bluish-green butterfly with the brilliant iridescent sheen, and other flies come out at dawn. That also is why the clearing must run from east to west, for as the sun rises from the horizon the rays begin to illuminate the passage and, the remainder of the jungle being still in darkness, the flies are attracted to the clearing and the freshness of the stream.' With this he rose, saying: 'Now, monsieur, the hour is late. We had better retire.'

'To a successful day's hunting, then,' I toasted, draining my glass.

'And a safe return,' added Henri, as if in prayer, draining his.

THE Mairie clock was just striking four as we reached the outskirts of the town and entered the jungle by a track running parallel with the river. We followed this track, used by the bush-folk to reach their villages some two or three miles up the river. I had prepared myself with a haversack containing necessities, a stick of snakewood, a wood if anything harder than ebony, and a torch.

As we proceeded, the breaking of a twig or the light from our torches would disturb some slumbering animal, and occasionally we would see a dark form slithering deeper into the bush. Again, a flock of paroquets would screech their protests overhead, or the eerie hoot of an owl or of a vampire bat swooping across the path inches from my head would startle me.

About two miles along the track, Henri, who had been examining the trees on the left carefully, stopped and exclaimed: 'Look, monsieur, we enter here,' and he plunged into the thick undergrowth.

From here on the going became more difficult. Henri, leading, hacked and slashed at the overhanging branches and vinelike growths with his machete. Being a clumsy townsman, I soon had scratches on my face and hands and rents in my clothing.

After penetrating some half-a-mile from the track, Henri suddenly stopped and, putting a hand on my arm, exclaimed: 'Listen!'

I stopped and listened. At first all I could hear was the cheeping of small night-birds. Then I heard the sound that had attracted Henri's attention—the occasional snapping of a twig. 'Is it a wild cat?' I asked.

'Wild cats and creatures of the jungle do not snap twigs,' he replied. 'They move stealthily. Man is not so sure-footed. There are others astir. We must be alert.'

We proceeded cautiously, keeping as close together as possible. Even Henri showed his anxiety in the tenseness of his movements. As for me, the darkness and unaccustomed sounds of the jungle were playing tricks with my nerves. Once when I shone my torch and was unable to locate Henri ahead, I panicked and rushed headlong forward, only to trip over a tree-root, and add a few more scratches as I landed full-length in a low prickly bush. Henri smiled as he helped me up. He had been at my side all the time.

The undergrowth began to thin slightly as we came to a small stream. 'We are making good progress, monsieur,' remarked Henri. 'One kilometre and we arrive at my clearing. We follow this stream.'

Since my fall I had become more composed and now relied more upon my sense of hearing to locate my guide than upon my torch. There was no moon, but occasionally I glimpsed the stars through the tall trees. Then suddenly I heard a warning cry ahead: 'Look out, monsieur, an assassin!'

For a moment only I was rooted to the spot. Then I hurried forward and saw dimly in the darkness Henri being attacked by two men. One had a machete, and he and Henri were slashing at each other with their murderous knives, while the second man was manoeuvring to use his heavy stick on the back of Henri's head. I realised that surprise was essential, so edged my way cautiously until behind the man with the machete. Shining my torch, I brought my stick down with all the force I could muster on his head. He dropped like a stone. The other man gave one surprised gasp, and with fear in his eyes made off into the bush.

Henri put out his hand, and with the first sign of emotion he had shown, and relief in his voice, said: 'Thank you, monsieur. You saved my life.'

As I took his hand, I feebly murmured: 'This is what you expected, isn't it?' My stomach seemed to turn over as I realised what I had done. 'Do you think I have killed him?' I asked with concern.

'Do not worry, monsieur,' replied Henri, bending down to examine his assailant. 'This man is the one known as Polish Pete, and nobody, least of all the authorities, would

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grieve if you had, but I fear his skull is too thick to be permanently damaged.' Then straightening up and cupping his hands to his mouth, he called loudly in French: 'Gaston, come and attend to your murderous companion.' To me, he said: 'Come, monsieur, we shall not be disturbed again. They are cowards these two. Having incapacitated my colleague they presumed I should be alone. They will only attack in superior numbers.' He paused. 'We will, however, take the precaution of procuring my machete,' he added, picking the weapon up.

'But ought we not to do something?' I asked, my conscience troubling me.

'Yes, monsieur,' answered Henri with a wry smile. 'Go about our business. Gaston will not have run far. He will return as soon as we have departed.' And without another word he moved off, and I followed rather reluctantly. Before we had gone far I looked back and saw the ray of a torch flashing here and there until it came to rest on the wounded man, much to my relief.

A FEW hundred yards further on we arrived at the clearing. It was as Henri had described—a tree-lined corridor, with a small stream five or six feet in width winding through it. It was still dark as we picked our way to the eastern end, where Henri divested himself of his equipment. Giving his moustache a twirl, which I now knew to be a sign of satisfaction, he remarked: 'We have done well, monsieur, in spite of the interruption. It still wants twenty minutes to sunrise. Let us now rest, and I will explain how we commence operations.'

He fixed a torch in the fork of a tree, so that it illuminated a small area, to enable me to follow his instructions. First he prepared two thin sticks. On the end of each he pinned a damaged butterfly reinforced with gummed paper, and with paper hinges on the wings. 'This is the bait,' he said. 'Morpho are in general fierce fighters, Menelaus especially. Seeing the bait, which is held in the left hand and moved to imitate the flying of a live fly, they attack. The net, held in the right hand, is swung over, catching the fly. At the same moment the stick is dropped, the net given a twist, and the fly caught through the net between a finger and thumb of the left hand, and immediately killed by pinching its body before it can damage its wings by struggling.

But now, monsieur, it is dawn,' he announced, looking up at the sky. 'I will stand here near the end of the clearing, you a few metres further back, where you can observe my movements, until you feel confident to try yourself.'

Within a few minutes the sky began to lighten in the east. Then the rays of the sun, penetrating deeper and deeper into the corridor, transformed it into a veritable fairy glade ablaze with colour. I stood spellbound as the frogs and insects commenced their morning chorus, songbirds trilled, paroquets screeched, and a troop of monkeys scampering overhead began to chatter. The whole world had come to life, and all nature was voicing its joy at the newborn day.

It must have been ten minutes that I stood entranced, before I turned and observed that Henri had already netted several flies, and recalled what he had said. A perfect specimen must be caught almost immediately after it is hatched, otherwise within a few hours, if it still exists at all, it will be found spoilt, with wings broken or rubbed by branches, thistles, and the like, or damaged by attacks from other insects or from birds. The normal life of these butterflies is one period of the sun. Their only extension of life above one day is during wet or dull weather when the sun is obscured. So I picked up my dummy fly and net.

The air was filled with the beautiful iridescent sheen of the *Morpho Menelaus*, *Morpho Adonis*, and other rare butterflies, darting here, there, and everywhere. They soon attacked my dummy. At first I damaged quite a few by not being quick enough at the kill, but soon I got the knack, and my spoils began to grow. We were kept extremely busy until about nine-thirty, when only an occasional fly was to be seen, so Henri called a halt. 'You have done well, monsieur. A very good catch,' he congratulated me, examining my collection, as he gave his moustache a twirl of satisfaction.

I SAT on a fallen tree-trunk at the edge of the stream. The exertion and excitement of the morning had tired me. Henri was busy preparing further dummy flies for catching the *Morpho Rhetenor*, a similar species to the *Menelaus*, but a more intense blue. The capture of these, as he explained, offers more difficulty, first on account of their more rapid flight, secondly because they fly at a height of from 20 to 25 feet. The larger the area that

has been cleared, the lower they fly, but never below 15 feet. The hunter therefore builds a scaffold or platform, called a 'mirador', and on it he stands and operates in the same way as for other *Morpho*, the net in one hand, the bait in the other. Having, however, such a limited space to work from, he frequently in his eagerness to catch a fly leans out too far, with disastrous results.

These high fliers start appearing about ten-thirty in the morning. Besides *Rhetenor*, already mentioned, *Cypris*, *Hecuba*, *Perseus*, and *Metellus* are also captured from a mirador. After one o'clock none of these will be seen again that day.

Henri had prepared two miradors, one a structure of poles and bamboo, standing near the centre of the clearing, and one built against a tree. This latter he suggested I should use, and he advised me to attach a cord around my waist, tying the other end to the tree, so that I could reach only as far as the edge of the platform.

While Henri was explaining the coming operation, I sat on the ground, my back against the tree-trunk, enjoying my pipe. When he had finished his explanation, he walked away to inspect his miradors and see that all was ready. I felt drowsy and closed my eyes, and was just beginning to nod, when I seemed to hear Henri's voice coming from afar. It sounded unreal in its intensity. 'Still, monsieur—do not move a muscle—keep your eyes closed—still—still.' I was fully awake now to the urgency in Henri's whispered commands not to move.

I wondered what was happening. The jungle seemed unnaturally quiet. Even the frogs and insects had ceased their chorus. The suspense was frightening. Come what may, I must look, I thought, as the drone of Henri's voice, went on. I partly opened my eyes and peered through lowered lids. Then I saw! There, about six feet in front of me, its head raised two feet in the air, two beady eyes fixed on me, was a viper.

My first reaction was fascination. I found myself admiring the grace and statuesque poise of the reptile. The colouring was superb—mottled shades of green and black. The skin glistened in the sunshine. The only movement was the venomous tongue probing the air. Then I realised I could not keep this 'possum-like pose for long. Would the end be quick, or should I linger in agony? I wondered. I was beginning to think I must make a move

or do something to escape, when I noticed slightly to my left, near the end of the tree-trunk, a small green lizard. It might have been stuffed for all the movement it made with one front foot raised. At that moment I forgot my own peril, in watching this lizard, and wondering how long it could hold that immobility?

Henri, still chanting: 'Do not move—still—still,' was about six yards behind the reptile, when I saw his hand move, and he threw a pebble which landed near the tail of the lizard. The little green creature, startled, ran for the stream. In a flash the viper shot forward, caught it on the brink of the stream, slithered into the water, and in a second was up the further bank, disappearing into the undergrowth, the lizard in its mouth.

It was my turn to shake Henri by the hand and say: 'Now you have saved my life,' and I wished then I had a moustache to twirl.

'Thank that little green reptile for being where it was,' he replied. Then, shaking his head from side to side, he continued: 'I reprimand myself, monsieur, for failing to warn you of the danger of taking the siesta in the heart of the jungle. One must be ever on the alert.'

'Oh well, there is no harm done, except to that poor lizard,' I added. 'Survival of the fittest. It's a harsh law.'

'Quite,' said Henri, in his matter-of-fact way. 'We survive, so let us proceed. The *Rhetenor* are arriving.'

NEAR the treetops I could see the brilliant blue sheen of the wings flashing in the sunlight, so, collecting my net, bait, and a length of cord, I climbed to my precarious perch about 16 feet up.

As I moved my bait the butterflies soon began to attack it, and glad I was then to have followed Henri's advice and anchored myself to the tree, or in my excitement I should certainly have come to grief. I did even better than I had done on the ground, and caught many beautiful specimens, the names of many of which I did not know at the time. The *Hecuba* I recognised, the wings a sort of transparent green panelling, and the *Cypris*, a brilliant blue with yellow markings in the wing. We were kept extremely busy until nearly one o'clock, when the butterflies began to thin out and then to cease altogether.

We enjoyed a frugal meal of bananas,

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pawpaws, mangoes, and other fruits, and drank the milk from coconuts. I was about to pick some luscious-looking cherries, when warned by Henri. 'Not those, monsieur—they are poison.' And he gave me this advice: 'When in doubt watch the monkeys and birds. They know which to eat.'

After this repast, Henri, who never seemed to need rest, started preparations for the catching of *Agria*, a bright-red butterfly, which flies very rapidly and close to the ground. They are so swift, in fact, that it is almost impossible to catch them without in some way arresting their flight. For this purpose, Henri hung on low branches and bushes a few yards apart ripe bananas previously dipped in rum. The smell produced by the fermentation attracts the butterfly, which sucks the juice of the fruit, and—well, you know what happens when one overindulges in rum. However, it needs a skilful hand to catch the fly in the net without spoiling it with the banana or a branch of the bush. So I left this operation entirely to Henri, and was fascinated to watch his dexterity.

WHEN there were no more butterflies to be seen, Henri kindled a small fire, over which he fixed a sheet of tin. On to this tin when it became hot he placed our catch of flies a few at a time, then, as he removed them with tweezers, he carefully packed them between sheets of paper in a wooden box for the journey back. The object of this drying process was to prevent the oil from the bodies of the flies seeping out after a time and staining the delicate sheen on the wings. As our catch amounted to several hundred butterflies, the drying took some time.

I asked Henri if the supply of butterflies might not become extinct, as so many are caught.

'There is little fear of that,' he explained. 'For one reason, there is the frequency with

which they breed. Also, up to the present the hunters have confined their activities to the near vicinity of St Laurent, Cayenne, and the surrounding camps.' Then he informed me, with a twirl to his moustache: 'I myself have been on an expedition as far as Sparwine and Apatoe, about two days by canoe up the Maroni River. At this last place begin the falls through which no white man can manage a canoe. Above these falls are big creeks where there are places offering butterflies in abundance, but to reach these spots one must employ the Bush Negroes or Indians to negotiate the falls and rapids, and they are a very independent people. However, some day,' he shrugged, 'I may make the attempt.'

About four o'clock we started on the return journey. I was by then extremely tired, and found the going difficult, but Henri pressed on with tireless energy. Once I stumbled and fell, and in doing so dislodged an ants' nest. Within seconds I was covered from head to foot with the little red pests. Henri rushed to my assistance, helped me up, and together we brushed the beasts off, but not before I was a mass of bites.

Many convicts in the past, attempting escape through the jungle, had become exhausted, overtaken by fever or fatigue, and, as they grew too weak to fight off the attack by millions of red ants, succumbed. So overnight the carcase would be picked clean, and nothing left but a skeleton.

It was dusk as we arrived back in St Laurent. Perhaps dusk is not the correct description. There is no twilight in the tropics. The curtain of night descends as at the end of a play, and the night chorus of frogs and insects starts as if to the baton of an invisible conductor.

As Henri summed up, after totalling our joint catch, and giving his moustache a final twirl of satisfaction: 'A very successful day, monsieur, and no unforeseen happenings.'

Well—maybe he was right.

Paradox

*Man is the hunter,
So historians say,
But woman knows that man
Is oft the prey.*

D. B. HERVEY.

Ship of the Desert

A Close-Up of the Camel

T. KERR RITCHIE

WHEN the prophet Mahomet was composing the Koran he solemnly described the camel as an instance of the wisdom of God, but the average individual who has had anything to do with these animals in their native environment is inclined to think there is a good spice of the Evil One in their composition. Camels are always grumbling and biting beneath their burdens. Some are more morose and wicked than others, but I have never met an amiable, gentle camel. The Arabs love their horses as they love their children, but they treat the all-necessary ship of the desert as they incline to treat their mother-in-law. Naturally, the camel becomes vindictive and cares for nobody, as nobody cares for him.

Oriental generally overload and overwork the camel, and that does not improve his disposition. For instance, we used to allot 364 pounds each to camels doing the Khyber Pass journey and drive them moderate distances each day, whereas the native owners loaded them up with nearly three-quarters of a ton and drove them eighty miles in three or four days. If the animals die, it is kismet; if they survive, they are turned out to pasture for a week to recover.

There is never a moment of the day when a camel will not snap its master's arm off if it has the chance. It can inflict one of the most crunching rips possible by any pair of jaws. It will seize the hand that feeds it; it will take a piece out of a man's back or leg; it will fasten upon a man who rides past it in a narrow defile and dash him to death.

Even among themselves camels fight desperately. Lacking horns, they use their teeth, and with them they grip a leg and wrench and tug until they have downed their rival; then they drop upon him with the knees and pound

him to death. A contest between two bull camels is a grim spectacle; and it is a dangerous one, for the example of the first two is infectious, and will set all the other males roaring and battling among themselves with a frenzy not to be described, and a damage to merchandise not to be mentioned in the hearing of the native owner.

The camel-driver has got to have nerves of steel; and nothing is more just than the proverb: 'When slaves hold the whip, let the camel-driver quake.' Not so long ago there was a famous—or infamous—beast in British Imperial Government service in India. His temper was a typhoon in camel-skin. He was hated, yet much admired, for he had killed two men. So his driver put a cluster of ostrich-feathers on his head, marched him invariably at the head of the caravan, and told of his deeds with exultation. A distinguished English official approached the man one day, and in course of volubly relating all about his beast's wonderful record and exploits the driver momentarily forgot his charge. The camel lunged at him open-mouthed, but the driver was quicker. He jumped aside, then literally flew at the camel's head, seizing its pendulous upper lip with one bare hand, placing the lip between his teeth and shaking it violently. At this indignity the camel, killer of two, knew its master, became quiet as a lamb, and was docility itself.

MILK and butter come from the female camels, flesh from the young and the males, speed and strength from all; ropes, tents, and clothes from the hair. John the Baptist conformed to desert conventions when he arrayed himself in garments made of camel-hair. Incidentally, camel-bones are of the

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finest texture; they are used nowadays in enormous quantities as genuine ivory.

Apart from material benefits, the first fruits of Arab genius were camel songs. As the drivers made their long monotonous course across deserts, they composed verselets, keeping time with the footfalls of the beasts they rode, singing songs of dark-eyed maidens and streams twinkling clear in dreamland oases, fierce hymns of battle and of contest for wells. The metre was fixed by the tread of the camel, and it came about that the beasts marched better in time to their masters' voices than in silence. With a quickening of the music they raised their heads, lengthened their paces, and hastened their speed, and new rhythms, more complex lines and couplets, grew to match the hurry of gladdened feet. So Arabic literature took shape in the desert, beaten out beneath the burning sky by men swaying and swinging to the lurching gait of the marching camel.

There is something of the serpent in the whole appearance of the camel, in its love of music as in its general temper, and scientists tell us that in the camel family the corpuscles of the blood are not circular as in other mammals, but oval as in birds or reptiles.

An odd thing about camels is that their body temperature is not constant like that of man and other mammals. It rises with the surrounding heat of the day and falls with the cold desert winds at night. We humans vary little more than a degree whether we are at the North Pole or in the tropics; the camel's temperature rises and falls eight or nine degrees in the course of twenty-four hours in the Arabian desert.

Contrary to general belief, the camel is not abstemious, but is a heavy, regular drinker, and in preparation for a long journey it is watered at ever-increasing intervals, until it can fast for many days. Immediately before starting, a draught is given, mixed with salt, so that the camel drinks deeply and stores its cells to capacity. Thirty or forty in number, these cells are shaped rather like round tobacco-pouches. One cell, when distended, will hold three gallons—but much less than this when all the cells are filled. The camel can open and close each cell at will, much as the hive-bee uses its honey-bag, so that it can empty any cells into the digestive portion of its interior, and thus, with marvellous ingenuity and scrupulous economy, maintain its water-supply and sustain its life.

What would be a rich abundance for a horse or a cow would not be acceptable to a camel. For him the lush grass of the meadow is not food; give him the prickliest thorn, the scrubbiest thistle-like growth, and camel paradise is there. The Arabian or Bactrian camel will stride across a field of alfalfa ready for hay-making, paddle through a running brook—which camels abominate—to reach a hedge of forbidding briar and bramble, and feast with rapture. The beasts luxuriate on bitter weeds and horrid filthy mineralised water, unpalatable as Sodom and Gomorrah.

FOR thousands of years the camel was the most distinctive feature of the African or Asiatic deserts. Without it there could have been no traffic through seemingly endless stretches of sun-drenched stones or sand. Modern progress, however, is gradually eliminating the camel from the commercial life of the East. The motor-car is the camel's inexorable enemy, and many of the ancient caravan routes are now either disused or have become traffic arteries for motor vehicles.

Probably the oldest of the abandoned caravan roads in Africa leads from El Fasher across the Libyan desert to the Kharga Oasis, and thence northwards to the valley of the Nile. This was the road used by slave-traders hundreds of years ago who carried on their inhuman business between Cairo and the Sudan. The bones of slaves who perished in transit are still to be found along this ancient caravan road of nearly a thousand miles. Miserable negroes, men, women, and children, were chained together and had to cover this tremendous distance on foot under the scorching African sun. Their masters were, however, seated on camels. When a slave collapsed from fatigue, he was cut loose from the communal chain and left to die by the roadside.

Nowadays you find stray camels in Arizona and New Mexico; they toil in Zanzibar or Karachi, and sweat in southern Italy or freeze in Mongolia. They are valued servants in Cyprus or the Canary Islands, and are esteemed friends of carrier and cultivator in Spain. The Bactrian camel in a wild state is still to be found in the more remote parts of Tibet. The camel was the servant of man before even sails were used by boats to sail to windward; and, in a word, 'one decrepit camel still bears the burden of many asses.'



Kaim

R. N. STEWART

II

[I—Kaim is an Alaskan Indian girl, offspring of an unknown father and of a mother who died just after the birth of the child in the Mission hospital at Fort Yukon. Having no known relatives, she is adopted by an Indian family, consisting of Joseph and Anna, and of Ahtek, the eldest son, and other children, and she grows up remarkably sensed in the wild.]

IN spring Kaim broke her leg. As to just how it happened, not even Kaim herself was very clear. She had been playing on the piled-up ice on the river-bank and slipped. The stranded bergs of ice are big, and she fell about twenty feet. She was knocked unconscious, and when she came round she found she could not move. It was some time before Joseph found her. He got her back to the cabin, and both Joseph and Anna did what they could, but this was not very much.

The nearest doctor was at Fort Yukon, about 100 miles downstream. In normal times the journey to the Mission hospital there is an easy one, by sled in winter and by canoe in summer, but just at this time of year the trails along the river were impassable, and the river, swollen to many times its usual size,

was a seething mass of grinding ice-floes—

*Black anchor ice of strange device
Shot upward from its bed.*

The river was quite unnavigable by raft or canoe even for fit men, let alone for a sick child. There was nothing Joseph could do meanwhile but to make Kaim as comfortable as could be contrived in the cabin, and wait.

On examination, the damage to Kaim's leg was worse than Joseph had feared. The fracture was compound. Joseph would have dealt with a similar injury to one of his dogs in one of two ways. Either he would have put a splint on and tied it in place with a dirty rag, segregating the dog to save it from interference by the others and allowing nature do the rest, or he would have shot the dog at once if he had thought the case was hopeless. Neither of these alternatives seemed suitable for Kaim. It is true that he fashioned a splint and tied this in position with rather dirty bandages, there being no clean ones. The first part of the treatment, then, was rather similar, but Kaim was not isolated. She was given the best corner in the cabin.

Joseph was more worried than was Anna.

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He had a better knowledge of the river and could tell how long it was likely to be before it was navigable. He also knew that the river trail would not be fit for weeks.

Kaim accepted her injury with stoical calm, in spite of the fact that the leg pained her. She drew upon those hidden reserves of patience which give Indians that almost stolid, uncomplaining resistance that many of them exhibit on such occasions.

The Yukon is one of the world's great waterways and once she starts throwing her ice the process takes some time, as there are many hundred miles of the river and many tributaries adding their quota to the main stream. Each day Joseph would go early to the river's bank and look, and for many mornings he would come back depressed and shaking his head. Anna would stand by the cabin door and when she saw Joseph's dejected attitude in the distance she would return to Kaim and say: 'Not to-day, Kaim.'

At first, apart from the pain and the shock, Kaim was not too bad, but eventually the wound became infected, and after a week of this she was running a fever, symptoms that both Joseph and Anna had feared but, with their lack of knowledge and material, could do nothing to abate. Now there was no doubt that Kaim was really ill, and she knew it. She said to Anna: 'You think, Anna, I die?'

It was a questioning plea for reassurance, and Anna recognised it as such. 'No, Kaim, you no die. Joseph say the river getting clearer this morning. Soon he take you to Fort Yukon,' lied Anna.

During these days Ahtek and the other children would come silently into the cabin and each in turn would secretly bring some treasured toy to please Kaim. Loving-kindness such as they displayed was in itself an anodyne. Further, the mere fact that her own people so ardently wished for her recovery was a help to Kaim, but it was not enough.

After some days there was a slight easing in the flow of ice and the water-level was dropping. Joseph gazed at it for a long time, then he came to a decision: 'Anna,' he called, 'I take canoe with Kaim to-night.'

'Joseph, the river's still running bad—better wait,' said Anna, suddenly apprehensive for Joseph, as well as for Kaim.

It was a risk, but further delay meant a greater risk, as Kaim was losing ground, and for the journey she would have to have a reserve of stamina.

Once Joseph had decided, he would brook no alteration to his decision or to his plan, and Anna knew this, so, having made her protest and seen it rejected, she went and made up a pitiful bundle of clothes for Kaim, collected the sleeping-ropes, got together enough food, and made all else ready.

'I take Ahtek too,' said Joseph.

Though Anna disliked the idea, she knew that this was a wise decision, though it entailed some further risk and possible overloading of the canoe. But the additional risk was justified, because a second pair of hands, even those of a boy, might mean the difference between salvation and disaster, and if they had to camp on shore Ahtek would add to Kaim's comfort.

JOSEPH launched his canoe in a small backwater free of ice, loaded the stores, carried Kaim aboard and put her on top of the piled robes. She was well wrapped up and her position in the canoe was carefully thought out. During the passage downstream with the river in its present state there was always the risk of a capsizing and it was essential that Kaim should be free to get clear if such a calamity occurred, for she was in no condition to struggle up from the bottom of an overturned canoe.

Joseph intended to stop at the first mail hut, if he could, about 25 miles downstream. These huts are not inhabited, but they provide shelter. However, it might be difficult to get to the hut, and, if the river remained reasonably clear, it might be better to push on and save time.

Once all was secure, Joseph put out into the stream. The river was running fast. Normally, at the beginning of the Yukon Flats, where Joseph's cabin was, the speed of the current is about four knots, but at the present height of the river it was running at seven knots. With a clear river this speed would have been just what Joseph wanted. They would have made the trip in little over half the normal time, but with large blocks of ice sculling about the extra speed was an extra danger. It gave less time to see the ice and required more work with the paddle to avoid it.

Ice in a big river is queer stuff. It does not always float nicely on the surface. The various undertows and currents suck it down so that it becomes invisible. Then it shoots up

just where you least expect it. Joseph's canoe was made of birch-bark. Such craft are stoutly-built vessels and they will stand a lot of knocking about, but a fully-loaded birch-bark canoe in a seven-knot current will not stand collision with a lump of ice twenty square yards in area and three feet thick, especially if the ice is being driven by the current. Ice tends to pile up on the shores of any river it is going down, so Joseph found himself forced further and further out into the main stream.

In the Yukon Flats the river divides into many channels. These channels are separated by islands of varying size and are a problem to river navigators. Some of the waterways lead to blind ends and should such a channel be taken by the unwary traveller he may have to retrace his course for many miles to get back into the main river. This was not a danger which worried Joseph. He knew the Yukon Flats as well as, or better than, did the river-pilots, but to-day these calmer channels were a temptation, in that they invited entry by their lack of turbulence.

The main river when in flood is about four miles wide all the way down the Flats and it was not long before Joseph found himself a mile from the shore—and he was travelling at a great rate. He felt some anxiety about being so far out in the main stream, as he knew that if an accident should happen there was no hope for the survival of any of them—the water was too cold.

Ahtek was rather enjoying the trip. He still had the mind of a child, which discounts risk, and he had never travelled so fast in a canoe before. Kaim was too ill to think much about what was happening. She had sunk into an almost coma-like acceptance of pain and fever and it is more than likely that delirium intervened at times.

Joseph had put Ahtek in the bows, saying: 'I can manage the canoe. You look for ice.'

Ever and anon Ahtek would shout: 'Look, ice coming up,' and, sure enough, a great ugly jagged lump would spring up ahead or on either beam. Then for a few minutes Joseph would have to paddle desperately to avoid a collision. But beyond these fevered moments Joseph had no physical work to do. All the same, his anxiety remained unabated.

They came level with where the mail hut should be, but the shore it was on was hopeless for a landing. It was covered with piled ice thirty to forty feet high, and the river along-

side was congested with grinding floes. Joseph took one look at it and held on his course.

SO far they had made better time than Joseph could have hoped for, but it was getting dark, and he did not relish a night passage. He knew that, sharp as were Ahtek's eyes and vigilant though the boy was, not even he could see a rising lump of ice in time, once the light had gone, and even in moonlight it would be very, very difficult. Fortunately the sky was clear and the moon was in its third quarter.

It was about ten o'clock when they ran into some really bad trouble. The light for the moment was particularly bad, and Ahtek was in no way to blame. The canoe fouled a very big bit of ice which was being forced up slowly by the current.

'Ice in front,' yelled Ahtek, but they had already stranded. Fortunately the ice Ahtek saw was the same bit they had fouled. The canoe had not been rammed—it was being lifted on the back of the floe. The moment it grounded, the canoe became unmanageable, and Joseph had no control of it. Up and up the ice came till they were three feet clear of the water. Now there were two grave dangers. If the ice continued to rise vertically, they would be tipped off it, and it was better to slide off backwards than forwards, because by going back there was less likelihood of being engulfed in the forward roll of the lump itself. Then there was the other danger that the canoe would be launched broadside on, and in a turbulent seven-knot current, with but a few inches of freeboard, they would fill. The ice was spinning. Admittedly the rate of rotation was slow, but Joseph decided that at all costs he must keep the canoe bow or stern on to the stream. This meant some perilous acrobatics on the surface of the ice, from which he ran the grave risk of slipping. However, leaving the slow spin out of account, the lump of ice was large enough to remain steady, and not even Joseph's antics upset its equilibrium.

How long they travelled like this Joseph had no clear recollection, and after a time he got a queer sense of security, false though that might prove to be at any moment. The safety of the canoe depended on the blind chance that there would be no further collision and that the ice would be sucked down as quietly as it rose up.

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Joseph thought it was for about an hour that they were carried like a piece of flotsam on the berg. Then without dramatic convulsion the floe subsided. Some twist of the current took it down and, as easily as it had stranded, the canoe floated once again.

With desperate strokes Joseph paddled away from where he thought the ice was, and they must have travelled nearly a mile before he felt they were clear of it.

So the night wore on, the canoe far out in the river, Joseph and the boy weary, but ever on the alert, and Kaim in the semicoma of delirium, with occasional lucid intervals. The lucid intervals were her bad moments, because then she realised something of the danger, and all of the discomfort—the cramped position she was in, with no power to alleviate it, the cold against which she no longer had the weapon of action, any movement seeming futile and bringing on spasms of agony besides. Yet she never uttered one whimper.

THE dawn broke on a desolate scene, the great river swirling along with six months of flotsam on its breast, and

*From shore to shore we heard the roar
The heaving ice floes make.*

Joseph produced some waterlogged bread and a bit of biltong which he passed to Ahtek. Ahtek tried to get Kaim to take some, but she could not look at it. The other two, however, derived some satisfaction from the unappetising mess. Still, it was no easy repast. Eyes had to be alert all the time and often the food had to be dropped for service with the paddles.

Though the canoe was buoyant enough, there were times when quantities of water had been shipped, the amount varying from a cupful to a bucketful. The temperature was not low for Alaska, but it was cold enough to make any dousing a miserable experience, and the heat of the travellers' bodies was not sufficient to warm their saturated garments. Fortunately for Kaim the skins in which she was wrapped were but half-tanned and still almost impervious to water, so she did not suffer quite so much from wet clothing as did the other two.

For some hours after the daylight came the going was a bit easier, chiefly because the light helped them to see and to take evasive action with greater deliberation. Joseph was tired, and he had not been watching the shore for some time. Suddenly he looked up

and saw the outline of Fort Yukon ahead on the right bank. He was almost too late. He edged in to the right bank, more than ever on the alert for ice as, having arrived in sight of the Promised Land, it would be a tragedy to fail now.

At Fort Yukon the river takes a sweep to the west, and once Joseph was out of the main current there was plenty of slack water and the landing conditions were easier. Also, he had been seen from the bank, so there were willing hands to help him to make a landing. Signals were made as to the course he should take, and once the canoe was safe Joseph explained the urgency of Kaim's case. Someone ran up to the hospital to warn the staff there, and it was not long before a stretcher was produced and Kaim was at last sure of expert assistance.

Tired and exhausted though Joseph was, both he and Ahtek went to the hospital in order to hear how things stood. They waited some time, but eventually the doctor came out and reassured them to some extent. But doctors all the world over have to be very non-committal, and their first reports to laymen and relations are couched in terms of ambiguity. Such remarks as, 'She is more comfortable now,' or 'When she regains her strength after the journey—' sound all very well, but they do not say very much. However, Joseph had to be content with them, and such was his confidence in the doctor that he was, in fact, quite pleased. He had expected to be asked to come and sit by the bed of a dying child, and to be sent away with reassurances was a great deal better.

Kaim was not much worried by all they did to her. Exhaustion, fever, and anaesthesia all had their part in her immediate comfort and in her lack of response to the outside world. Some hours after her ordeal in the theatre, when for a moment she became semi-conscious, she said to the nurse beside her: 'Tell Anna it's now all right.' Just whether this was a thought of profound kindness on Kaim's part, or, more likely, a muddled and rambling statement, is not clear. But what was very clear was that Anna's anxiety was both distressing and prolonged, and it would be many weeks before she would know if the canoe party had ever got to Fort Yukon and if Kaim was going to live. Joseph, too, was worried about Anna's isolation.

Kaim's progress to health was not rapid. She suffered relapses and had to submit to

surgical intervention on three occasions, but her life and her leg were saved. Joseph stayed at Fort Yukon until the doctor said that Kaim was out of danger, but even when he left some weeks later the doctor could not say whether or not she would be permanently lame.

DURING the time Joseph was at Fort Yukon the doctor and the schoolteacher impressed upon him the necessity of Kaim going to school once she was fit to do so. With this idea Joseph agreed, partly because he knew it would be a long time before Kaim was fit for a normal life and partly because of his old promise. But Joseph was certain that Kaim would protest hotly, and he rather dreaded the moment when he would have to tell her.

'Kaim, you will have to be here long time, your leg wants plenty care.'

'Yes.'

'What you do here when you get up?'

'I help the nurses.'

'Yes, Kaim, that's good, but don't you think you learn to read too?'

'Well, maybe.'

This was going better than Joseph had expected and he rather rushed the next fence. 'That's good. The schoolma'am, she tell you everything, and the Godman he teach you too.'

'I no go to school.'

'No, Kaim, but seeing you here long time, no harm you learning what these people say?'

'No, I no want to hear. They talk too much.'

'But, Kaim, you only listen when you want to hear.'

'I know the Godman. He good man and kind, but he talk, talk, and talk.'

Then Joseph tried another line. 'Well, Kaim, you like please Anna and me?'

'Yes.'

'Well, doctor, Godman, and schoolma'am my good friends. I like you go to school with them. Anna like it too.'

Kaim thought for some time, then she said: 'Very well, Joseph, I go to school.'

And thus for the time being was the matter settled. Joseph knew that once Kaim said she would go, she would do so, but he had no illusions about the difficulties that were likely to beset her would-be teachers. Kaim could be persuaded, but not dragged. However, for the moment there was no question of Kaim going to any school. She was confined to a

hospital bed and likely to continue so for many weeks.

Joseph and Ahtek went back home as soon as Kaim was out of danger and the river conditions allowed them to go upstream. As a matter of fact, the two of them were something of heroes, as the trip down the river with Kaim was a formidable undertaking and, among the Indians, likely to assume legendary fame. Joseph was anxious to get back to Anna as she was still without word of them. Quite apart from being alone with the other children and all the dogs, she did not even know if Kaim was still alive.

IT was natural that Kaim was at first a placid patient. Indeed, she was not fit enough to be anything else, and she was on the danger-list for several weeks. At this time medical science had not discovered penicillin and the other drugs that would have made Kaim's case comparatively simple. She had to rely on devoted nursing and skilled surgery and her own robust constitution. Perhaps it was to the latter that she owed her survival. She was, of course, a favoured patient, having been born in the hospital and passed her extreme infancy there. The present matron had been one of the nurses who had tended her and her mother when she was born, and here was the ewe lamb in desperate need of attention. Well, she got it.

While Kaim was desperately ill she was only of interest to the nurses and the doctor—rather like an almost inanimate piece of flotsam adrift on a dangerous river with the professional lifesavers doing their best to retrieve her. But once the danger was passed and she began to recover, the picture changed. She had been cleaned, scrubbed, brushed, clothed, and generally tended until she resembled a larger edition of what she was when she left the Mission as an infant.

All hospital nurses, as befits their profession, like to have their charges clean. Kaim thought differently. This passion for washing was abhorrent, and seemed as senseless as it was uncomfortable. It was not only a matter of the desire to avoid soap and water. A dirty buckskin shirt was a very much more comfortable garment than the semi-starved nightshirt which the authorities thought she should wear. Actually, she kept her bed and its immediate surroundings fairly clean, not from any principles of hygiene, but because it saved her

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frequent admonitory lectures. In an Indian camp there is no sanitation, and the purpose of plumbing escaped Kaim. Behind the ward door was far enough away for anybody. The newly-installed water-closet was a fascinating place, but not for its designed purpose. Pulling the plug and listening to the magic of running water was great fun, and the gurgling noises it made in its pipes were enchanting music, but to Kaim this was the only purpose of the place.

All the dogs which run loose in a place like Fort Yukon had to be cultivated, and the dogs recognised Kaim as a friend, so she brought them into the ward. The nurses, some of whom were scared of wandering huskies, tried to shoo them out, and huskies seldom react well to shooing. Indeed, they are apt to resent it.

Kaim had other habits which the nurses thought were peculiar. She would bring in and hide in her bedding all kinds of strange debris, none of which was too clean, and it was quite normal for her to go to bed with her moccasins on, no matter where she had been walking. Of course, Kaim thought that the nurses, and indeed the whole hospital staff, paid far too much attention to what they called cleanliness, and she could never understand why they made such a fuss when she wished to feed another Indian child patient on some morsel recovered from the jaws of a friendly husky puppy.

Once she was able to get around on crutches, Kaim would wander off into the country at the back of the hospital. This land was still muskeg or virgin tundra, clumps of jack-pine, swamps, and little lakes. The smaller varieties of game came right to the hospital boundary. In this domain Kaim would sit for hours looking for the wild life she loved. But the white nurses and the matron thought it a waste of time, if, indeed, it did not show a lack of mental balance in the child. The Indian maids, of which there were a number employed in the hospital, and no doubt some of the Indian children, knew what she was doing, but they did not see fit to enlighten the matron. It is possible that even if they had done so the matron would never have understood, good and kind woman though she was. Her life had been spent as a hospital missionary, and she had very narrow and rigid views. To her it was possible to commune with God, but not with a snowshoe rabbit or a husky. In fact, she would deem such conduct amoral if not immoral.

To the matron, Kaim, though christened soon after her birth—and the matron herself had stood sponsor for her—was a pagan. Perhaps it was not entirely the child's fault—she had left the fold too young. She thought that it was high time that Kaim should be taught to be a good Christian, and she meant to see that Kaim was so taught, possibly with the aid of the minister, or without his help, if that course were necessary.

THE minister was a young man, but he was no fool. He realised that in Arctic ways he was still a *cheechako*—that is to say, 'a novice', or, more freely rendered, 'one who has not seen the winter's ice come and go'. He realised that before he could gain the respect and confidence of the Indians, who were his principal congregation, he had much to learn.

The inhabitants of Arctic countries know the way to live in them, and outsiders coming into such countries have to learn these ways. This is a dictation of climate and geography, and not of man. Unlike other countries with milder climates, where invading or visiting people can enforce their customs or way of life on the indigenous inhabitants, Arctic countries reverse the process. The minister knew this and was doing his best to educate himself in a hard school.

Kaim, though a child of fourteen, was better equipped, and indeed more knowledgeable, than the minister about her country and how to live in it successfully. In spite of her feeling of superiority, she accepted him as an acquaintance, and perhaps, later, she would accept him as a friend and give him her confidence. It would depend on the man himself and whether he lived up to the standard of Arctic manhood she recognised. Kaim was of the same mind in such matters as were the other Indians, children or adults. The minister was aware of this and being a sensible man he set himself the task of earning the Indians' respect.

Kaim's convalescence was to bring far-reaching changes in her life. To begin with she had been the star patient in the hospital, but it so happened that once she was well enough to be considered as a pet rather than as a patient two other very sick children arrived. These naturally took up the time and the devotion of the nursing staff and Kaim found that from being the centre of the picture she was now but a very minor figure. At first

she did not approve, but after a short period of disgruntled annoyance she suddenly discovered that relegation to a minor character gave her a freedom which she had not enjoyed since leaving home. However, she was cunning enough not to advertise the fact, and she was able to absent herself for long periods without being missed and to wander some way into the tundra behind the hospital.

She rather avoided Fort Yukon, even though the settlement held certain delights for her, because she was bound to be seen there and have to put up with such remarks as: 'Kaim, you out so far. What will the doctor say?' or 'Kaim, you no business here. Off to the hospital with you.' It was not the remarks so much as the talk which inevitably got carried back to the matron of what Kaim had been doing, and which led to what she felt were uncalled for reprimands, that Kaim wished to avoid. Therefore it was better to go out into the wilder country towards the Porcupine river where she was unlikely to meet anybody, and it was the kind of country she liked and knew intimately. As yet the two stores in Fort Yukon held no great attractions for Kaim, though they were full of wonderful things. But their goods were all piled up on shelves and out of reach. As a matter of fact, the storekeeper had put the goods most likely to attract Indian children up on these shelves just to prevent people like Kaim from playing with them.

Behind the hospital, hidden away in the forest, there are two cemeteries. One of them is old and contains the remains of the early pioneers. Kaim found great peace and comfort by the graveyards, partly because their setting is well chosen and eminently fitting as a resting-place for those old frontiersmen and partly because of some mystical sense in the child which neither she nor anyone else could well explain.

It was here she was found by the minister one day. He had come on a routine visit to see that the place was tidy, and was surprised to find Kaim sitting there all alone. 'Kaim,' he said, 'what on earth are you doing here?'

'I come here to think and watch,' she replied.

'Well, Kaim, that's very interesting. Tell me what you see and what you think about.'

'I see many things,' said Kaim, then, after a pause, 'but it's better by moonlight.'

It was just at this moment in his acquaintance with Kaim that the minister penetrated her reserve and gained a slender footing as a

friend. He said to her: 'Kaim, I come here at times, but I see very little. Show me, or tell me, what you see.'

Kaim looked at him for some time without speaking, then she replied slowly: 'Yes, perhaps I show you, but you must learn to be quiet, and you must learn to be still.'

'Well, Kaim, I think I can learn to do both, but you must help me, because you know how to do these things better than I do.'

'You a lot to learn,' said Kaim. 'Now you never see me till you were a short way away. I see you long before, and I hear you long before that. That no good.'

Kaim considered that this was the end of the first lesson and she got up and started to limp back to the hospital.

The minister recognised at once that Kaim would say no more just then, so he accompanied her in silence. Before they parted he said: 'Kaim, you can teach me a lot. Perhaps I can teach you something. Will you let me try?'

'What you teach me?' asked Kaim.

'Well,' said the minister, 'I hear you may be going to school when you're well enough. Now if I can help you to learn to read before you go there, you get along quicker.'

Kaim thought about this and it seemed to her that this schooling was a sort of penance that had to be got over, like measles or a stomach-ache, and the sooner it was done the sooner she would be free. So the logic of the proposition seemed sound enough and she said: 'Yes, I like that.' Thus they made a pact. The minister, of course, had designs to win Kaim over as a member of his church and he thought that the lessons might be the surest way to success.

THAT evening the minister went to see the schoolmistress in her cabin and told her part of his pact with Kaim. At first the lady took a poor view of the suggestion, rather feeling that he had poached on her preserves. However, she had to accept the idea, and in the end she realised that if Kaim had some private tuition it would assist her as well as Kaim. But in order to preserve her professional status she told the minister exactly how he should begin and carry on. Young though he was, the minister was a tactful person. Inwardly, he smiled; outwardly, he accepted with enthusiasm the proffered help. After he left, the schoolteacher sighed, saying to her-

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self: 'He's a nice young man, but so young.' She was at least fifteen years his senior.

At first the minister tried to interest Kaim in picture-books and magazines. This was not altogether a success. Kaim would look at the pictures, but as they portrayed scenes and people so far outside her experience, she simply did not believe them.

The minister was anxious to convert Kaim into a true Christian. But he found that to a mind like hers there were many difficulties. To get her to believe in an abstract God was not difficult, and some of the tenets of Christianity were easy enough for her to understand and to accept. But all the teaching had to be done by example and precept. Such books as he had, even children's bibles, were written for children of warmer climates and wider horizons. The picture of Moses in the bulrushes, or even of the Sermon on the Mount, were so remote from the experience of a child like Kaim that she simply did not believe them. No one could imagine a child in a cradle made of bulrushes on the Yukon river, or anyone preaching to a multitude in the open in an Alaskan winter. Even the minister wore his surplice over his parka for winter services in the church at Fort Yukon. Then, again, domestic animals, apart from the dogs, were unknown to Kaim. She had never seen milk except from a tin, so a golden calf meant nothing, and the minister did not think that a golden caribou would do instead. Hers was a mind trained in the hard logic of life in an Arctic swamp. The minister realised that if he was to succeed he would have to be very careful and go slowly.

Kaim preferred the coloured advertisements in such magazines as *Saturday Evening Post*, and she could understand an aeroplane much better than a motor-car, but a beach scene in Florida with a background of date-palms was to her mere fantasy on the part of the artist. The minister was rather taken aback by Kaim's refusal to accept what he considered objects of common usage. He had forgotten that Kaim had never seen a road. The nearest approach to a roadway that she had seen was the cribwork trail to the landing-bank at Fort Yukon—and this was not the sort of track anyone would have cared to drive a car on. Aeroplanes were different. Kaim might not have seen one on the ground, but they flew

occasionally to Nome, passing over Fort Yukon on their way there. Also, she had heard that they had been used to take serum and medicine to other distressed settlements.

In his difficulty the minister went to the schoolteacher and borrowed primary readers designed for Indian children. Lessons from these were easier. It had B for Beaver, C for Caribou, H for Husky, L for Lynx, M for Moose, and S for Sled, letters standing for words that Kaim could understand. Some of these primers are very well written and produced.

Kaim would go to the minister's cabin for her lessons, and she attended fairly regularly, which surprised him. Some days she would arrive early and say: 'Now we go to the Porcupine,' and he knew that their roles were for the moment changed. He was to be the pupil for the day and she the instructress. By this reversal of roles he knew he was winning her confidence and, however slowly, he was content, as long as he was making progress. Kaim was a severe taskmaster. If the minister made more than two mistakes in the same lesson she would shut up like a clam and walk home, leaving him to follow disconsolate, yet at the same time mildly amused.

One day he took Kaim to the church and played to her on the harmonium. This was an instant success, and when the two or three young people who formed the nucleus of a choir came to practise hymns, Kaim was delighted. The minister realised that this was the way to hold Kaim and thus be able to help her.

Kaim flatly refused to sing, but one day he came upon her humming 'Onward! Christian Soldiers' to herself, and he felt that she was making progress in the direction he wished her to go.

After a month of his personal coaching the minister considered that Kaim was far enough advanced to take advantage of the lessons in the school. He rightly thought that companionship with other Indian children and the competition thus involved would be good for her. He first spoke to the doctor about the idea, to find out if Kaim was yet fit enough to take her place with her contemporaries. The doctor passed her fit, and thus Kaim's schooling began.

(To be continued.)

A Forgotten Waterway

The Ingenious Bude Canal

DAVID ST J. THOMAS

THERE is a certain fascination in studying something that was made by the labour of human hands, which once served the wants of human beings, and which has since been abandoned and forgotten. It was for the simple reason that nobody else had ever troubled to do it that five years ago I began finding out the history of what is now, for the most part, a deserted and dried-up ditch.

The ditch, most of which is hidden by trees, wanders aimlessly inland from the North Cornwall coast at Bude. Every now and then it comes to an abrupt stop, and in its place is an even piece of sloping ground. Occasionally sections of the ditch filled with water can be found, and there are numerous bridges, a tunnel, and several buildings in a dilapidated state of repair.

For thirty-five miles you can trace the ditch and its branch ditches, and each mile you will become more puzzled. Nor will people living by the way be able to help you much, for only the very oldest of them remember the day when the ditch formed part of the Bude Canal, and when trains of six little boats coupled together used to be drawn peacefully past by a single horse.

Bude, though now entirely a residential and a holiday town, owes its existence to the canal and harbour. A big trade was carried on with Bristol, South Wales, and Ireland, as many as fifty vessels, most of them sloops, entering the harbour by the canal lock-gates each month that the weather allowed. Grain, manganese, and potatoes for Ireland were among the exports. And each year thousands of tons of sand and merchandise were dispatched up the canal.

The canal ran to Druxton Bridge, near Launceston, and to Holsworthy. Without doubt it was the most ingenious engineering

work of its day. Old records I have found tell the story of the remarkable enterprise as it was seen through the eyes of those employed on it more than a century ago.

The canal was first proposed in the middle of the 18th century to carry sand for manure inland from Bude. An Act of Parliament was obtained in 1774, but only after a second Act in 1819 did construction at long last begin. And we read that no sooner were the works started than there was an attempt 'to excite disunion among the proprietors and to inspire unfounded jealousies.' Only the eventual help of the Exchequer Loan Board saved the Canal and Harbour Company from an early death. The Government took interest in the scheme because at the time of agricultural depression it helped to cure the big unemployment problem.

IN 1820 John Kingdon, inspector to the Company, began keeping a journal. The volume, which only recently again came to light, describes some of the difficulties encountered in the early days of the enterprise. On Sunday, October 22, 1820, we read: 'Remained at Bude in company with the chairman watching the effect of the high tide and seas on the breakwater and sea-lock.' On the following Wednesday: 'Blowing a hard gale with heavy rains. Tried to cross the Tamar at Burmsdon but without effect, the water being over the whole of the meadows... The works all deserted on account of the heavy rains.'

By November the sea-lock at Bude was 'getting forward', forty men were digging a channel from the Great Chapel Rock to the sea-lock, the shaft of the Hobbacott Down inclined plane was proceeding, and the

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reservoir was nearly completed. On March 5, the next year, is the entry: 'The water is let into the basin at high tide this day.' During the following weeks Mr Kingdon made experiments loading the first boat with sand—and judging from his journal he might have been playing with a new toy!

Notwithstanding such entries as 'Prevented from going on any part of the line by rain and waters' and 'At the reservoir great leaks', the canal construction continued. Some parts had to be suspended because of financial difficulties, but by July 1823 the line was open from Bude to Holsworthy and Tamerton Bridge.

Thus the Press described the scene on July 8: 'That respectable and liberal character Mr Blackmore, of Exeter, had the gratification of seeing launched on the waters of the canal, two barges, of thirty tons each, and many boats, his property, and received on them manure and merchandize for Holsworthy, thereby setting a praiseworthy example to men of capital to commence a trade no less lucrative to them, than highly advantageous to the holders of shares. The Committee of Management, supported by the neighbouring gentry, on the arrival of the loaded boats at the point of debarkation, marched through the town of Holsworthy in procession, the band playing "See the Conquering Hero Comes", and hailed by the acclamation of the populace of the surrounding country.'

After slumping badly, the Company's shares were now at a premium—but the waters of the canal were not long untroubled.

THE waterway, with its several branches, was really an amphibious railway. At intervals along the course the boats, which had iron wheels fixed to them, were lifted out of the water and placed on the rails of inclined planes. The largest of these planes—known as the Great Plane—is thus described in an old guide: 'The inclined plane is an ingenious substitute for a chain of locks and consists of a steep roadway, about 900 feet in length, which is furnished with two lines of rails dipping at each end into the canal, and traversed by an endless chain. Barges... are raised or lowered on the roadway by being attached to the chain, which is set in motion by two enormous buckets, each of eight feet in diameter, alternately filled with water and working in wells 225 feet in depth. As soon as the descending bucket has reached the bottom

of the well, it strikes upon a stake, which raises a plug, when the water runs out in a minute, and finds its way through an adit to the canal below. This bucket is then in readiness to be raised by the other.'

One may well wonder how this 900-foot-long inclined plane built over a well 225 feet deep was ever made to work at all, but for much of the time the machinery, with its buckets each containing 15 tons of water, well answered its purpose. On the other hand, there were so many parts that could go wrong, and this was ten years before the opening of the Liverpool and Manchester Railway. Even the rails on which the boats ran, themselves gave trouble, 'being so much broken in short lengths that it is impossible to keep them in any direction.'

The passage of barges was constantly hindered. Sometimes repairs took several weeks, and during that time the whole trade, which was carried on by independent traders who paid tolls to the Company, was brought to a standstill. Perhaps the chain attached to the boats broke, or there was trouble with the gearing machinery, or, as happened on several occasions, the buckets fell to the bottom of the well and broke. There were several of these inclined planes, including one sometimes worked by a steam-engine which was always on the point of exploding, and they afforded the canal managers never-ending trouble.

On more than one occasion the breakwater at Bude collapsed, and on February 24, 1838, three-quarters of it was completely washed away. Inland, the canal banks were always bursting. The reservoir—now called Tamar Lake and reserved as a bird sanctuary—sometimes ran dry in summer, while in winter few sea-going vessels could attempt to enter the narrow channel leading to the sea-lock gates at Bude. Every month the canal committee was presented with a long list of casualties.

HOW the Company ever managed to keep going it is hard to imagine. 'What am I to do? Please tell me what I am to do,' says its clerk, J. Honey, writing to the chairman in 1831. 'I am almost hourly annoyed here by being called upon for labourers' wages, taxes, &c., and not a farthing have I to pay either. I cannot help saying that I think the end will be a bad one, and the concern must fall to the ground. The poor labourers are starving for the want of bare necessities of life.'

A FORGOTTEN WATERWAY

On another occasion Mr Honey complains: 'I have walked myself until I am almost tired in that degree that I can scarcely walk any more. The expense of borrowing a horse will run away with the amount sufficient to purchase one.'

Writing to another member of the management committee he says: 'Believe me, Sir, was the concern wholly my own I could no do more for its welfare.' After giving a list of accidents, he adds: 'And worse than all this, there is no trade whatever on the canal. If there is no trade, there can be no income.'

It seems that Honey was a harassed man, and, reading the badly-written letter and minute books of the Company of the eighteen twenties and thirties, I felt that he was badly treated. Members of the management committee rarely answered his letters, even when the matter was urgent, but they gave him what appear to be stupid instructions. Honey, perhaps a rather fussy individual, but a man whom I came to like after reading several hundred of his letters, was suddenly told to pay the interest to the Exchequer Loan Board, though he had 'not a farthing'. Then he is told to sack all the employees. He says, answering that instruction: 'I know not what answer to write, as to discharging the men in the Company's employ. I did all I could with propriety and justice for the concern. You would not wish to let the whole concern go directly to destruction, as must have been the case had I not continued those in employ.'

At the 1827 annual meeting of the Company, the then chairman, George Call, said that 'in every branch of the service connected with the canal I have derived the greatest assistance from Mr Honey. His zeal, activity, and intelligence on all occasions entitled him to my best thanks.' But five years later Honey was given notice to give up superintendence of the canal and become a clerk only. Sick of trying to wake up the management committee, he eventually fell into the custom of giving authority for work to be done on his own behalf. The last we hear from him is a letter in which he complains to the chairman that the young man sent to take his place 'assumes much consequence by giving orders.'

TO forget Honey and go back to the story of the canal. Employees were paid 2s. or 2s. 6d. a day—that is, if they were paid at all,

for the workers suffered alike with the shareholders. It was one trouble after another.

Said chairman George Call: 'From the breakwater at Bude to the extreme points of the works, incessant demands on our very limited means are continually arising . . . The machinery and canal banks have failed repeatedly and the consequent stoppage of trade has materially affected the revenue . . . Chains have parted, buckets have been broke, metals on several inclines have given way (and we have none to replace them) . . . the banks have been found very leaky.'

One day legal action was threatened if the Company did not repair roads it had damaged; the next day part of an aqueduct fell on to the road beneath. The boiler of the steam-engine rusted through before the damage was discovered. A flood sank most boats, and then a drought dried up the canal. Traders cheated. Everyone in the district refused to give hungry employees any credit. There was sabotage, men being imprisoned for cutting the banks. Inefficient boatmen accidentally loosed boats from the top of inclined planes, thus breaking up the primitive railways and stopping trade for a fortnight. Leaks and breakages of chains and wheels of the inclined planes were almost daily occurrences. 'I know no remedy but patience,' said the chairman.

When the canal was working, the journey from Bude to Launceston took two days. But even at this slow rate of progress, and with the incubus of the inclined planes, the canal brought the price of sand down at Launceston by about three-quarters. For some years 50,000 tons of sand were carried annually, and eventually the company paid off its prior charges, though it never once rewarded its shareholders with a dividend. In the eighteen fifties the tonnage of sand carried was reduced by the introduction of artificial manures, and in 1864 the railway reached Launceston. Hereafter there was steady decline.

Two miles of the canal are now used for pleasure-boating at Bude, and a short stretch near Tamar Lake is used for Bude's water supply. For the rest, the scene is one of utter desolation. Centuries more may pass before all the earthworks are destroyed—even the 225-foot-deep well is still intact—but boats again there will never be. At Bude the smell of tar and the rousing sound of mariners' voices have been lost for ever. What hopes, and what fears, were stirred in the hearts of the pioneers of the canal!

I started by describing a ditch. To me it is no ordinary ditch. When I walk alongside it I am in company with the spirits of those who

in their day gave their all and suffered much for the sake of the future prosperity of the waterway.

The Vikings of Greenland

MARJORIE FINDLAY

EVERYONE knows to-day that it was the Viking, Leif Eriksson, Leif the Lucky, who discovered America, and not Christopher Columbus; and some people know that the landfall took place when Leif's ship, returning from Norway to his father's home in Greenland, was blown off its course. But few of us can even guess what his father's home in Greenland looked like.

Now Leif's father, Erik the Red, had led the settlement of Greenland. He had been outlawed as a young man in Iceland, after quarrelling with his neighbours, and had sailed away and made a three years' reconnaissance of Greenland's south-west coast. Later he left Iceland again and at the head of a fleet of Viking ships sailed successfully to Greenland and founded a colony there. All that was at the end of the 10th century.

This was the most remote of the Norsemen's colonies. The width of the Atlantic Ocean lay between it and Norway, the motherland. Yet the colony flourished. The archaeologists who have worked on the Greenlandic ruins say that the Viking population reached a maximum of probably about 3000 people and that there were still Norsemen living in Greenland even in the 16th century. To-day these ruins are the chief source of our information about those Viking colonists.

The visitor to Greenland, sailing up the western coast, past barren mountains that are snow-covered for most of the year, seeing no sign of human habitation, only rocky islands and fiords, cliffs and mountain-peaks, may well wonder where at any time the people

there, Viking or Greenlander, have found a place to live. It was at such a moment on a brilliantly sunny day that my companion turned to me suddenly and said: 'Look—in there, behind the mountain. The Norsemen had a farm with forty cows there. They've found the stalls.' The 'they' referred to were the archaeologists.

And that is the first thing we know from the ruins—that the Viking homesteads are all hidden away up the fiords. One never sees them from the outer coast. Near the heads of the fiords it is much more sheltered: and the summers are milder. There are gentle slopes covered with grass, suitable for dwellings, and growing in the innermost parts of the fiords are low thickets of arctic birch that can be used as firewood. The land was well suited to settlement by a farming people, for the Vikings, though fearsome warriors and pirates at sea, were busy farmers at home.

The innermost parts of these fiords on the south-west coast are a truly astonishing replica of the fiords the Vikings had come from in Iceland—the same narrow ribbon of water with green slopes coming down to the coast and the homesteads strung out along the water's edge. In Iceland this pattern of farms has survived until the present day; but in Greenland, where there are fewer of such places, the isolation eventually proved too much and the people succumbed.

THE ruins, when one comes to them, consist of blocks of local stone built up into walls.

THE VIKINGS OF GREENLAND

Some still stand fair and square at surface-level and many more are nowadays overgrown with turf. Some of the walls are remarkably well preserved. Most probably the Vikings packed the interstices of many of them with turf to keep the cold out, just as the Greenlanders did until very recently in their one-roomed huts.

Among the ruins the cow-byres are numerous. In places it is easy for even the layman to recognise them, because the very stone slabs used to divide the stalls one from the next and separate the cows are still in position.

One is immediately struck by the smallness both of the whole byre and of the individual stalls. The cows themselves must have been smaller than nowadays to fit in between the stone stall-divisions and they must have been very, very close to each other through the long months of winter. It is doubtful whether there were ever windows, for the aim was to protect the animals from the outer cold, and the atmosphere must have been fetid; perhaps however, no worse than in parts of Europe at the same time.

So the Vikings were dairy-farmers. It is most unlikely that they were able to eat bread except on the rarest occasions, for grain will ripen only exceptionally in Greenland, so milk products—milk, butter, and cheese—would be staples in their diet. Since they had come from Iceland and had kept the same culture, one can presume that they also made the Icelandic sour-milk dish, *skyr*, and that they kept their butter for literally years and relished it in the particular rancid state to which it turned.

A good part of the milk they used is said to have come from sheep, which they certainly kept in large numbers, for remains of sheep bones and also of homemade woollen cloth have been discovered. Milking sheep is laborious work for the size of the yield, but the practice persisted in the sister colony of Iceland up to nearly the present day, and one cannot suppose that the Greenland Vikings could possibly neglect this source of food. It is, of course, easier to keep sheep through the winter than it is to keep cows. The latter are more sensitive and require to be kept indoors longer and therefore need more hay.

Looking at the present-day landscape, even in the greenest spots that the Norsemen settled, it is difficult to know how they managed to collect enough hay in summer to keep these animals alive through the winter.

It is possible to see where they had their fields sometimes round the house ruins and sometimes in the vicinity of it. In patches the grass grows more luxuriantly, is a little greener than elsewhere. Here one can expect to find the remains of a homestead. Once again one is reminded of Iceland, where each farmhouse is sited on a field of emerald-green grass that stands out from the beige-coloured slopes around it. Long years of manuring made the grass green in Iceland and maybe the Greenland Norsemen also manured their home-fields from the supply accumulated in the stalls in winter. In Greenland the old fields are frequently overgrown with dwarf willows to-day.

THE house remains are, disappointingly, the most difficult of all to find, and it would appear that the Norseman took far less care in building his own home than in the making of shelters for his animals. Remains of houses have been found on Eric the Red's homestead near the head of Skovfjord, and this site, Brattahlid, as it was called, was the chief centre of the whole colony. One would hesitate to call a stone farmhouse, with its group of outhouses and near-by tenant farms, a 'capital'.

Church ruins are the most easily recognisable to the layman's eye and they form a truly remarkable record of the Norsemen's energy and skill in building. The churches are simply rectangular, and the walls of some of them, built stone upon stone, stand in a wonderful state of preservation. One is inescapably reminded by such sights of Celtic Christianity and the early churches as they must have looked in Scotland and Ireland at the time of St Columba. There is a connection too, for the Vikings who had settled in Greenland from Iceland had many of them come out from Norway by way of the Hebrides and northern Ireland. Some had overwintered there, married Scottish and Irish girls, and picked up smatterings of Christianity, before ever Leif the Lucky, as King Olaf's missionary, brought the Christian message to Greenland.

The Greenland colony had its own bishops sent out from Norway, and the grave of one of them forms one of the most interesting relics of the period. The episcopal seat was at the head of Igaliko Fjord, as it is now called, which was the next fiord to Skovfjord, where Eric the Red and his descendants lived. Only a

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narrow neck of land separated these two great men, the heads of state and church respectively, and a rough narrow road was made in the hillside to connect the two spots. It continues in use by the modern Greenlanders to this day.

The bishop's grave lies in the cathedral ruins among the mass of other ruins of stalls, houses, and barns. When the discovery of the grave was made, the bones were taken to Copenhagen for examination, and they have since been brought back and laid to rest again. A modern stone now covers the grave, with an inscription in Danish and Greenlandic. The ruins are overgrown with lyme-grass and the area has been fenced off by the Archaeological Commission.

In the more domestic line, spindle whorls and stone weights from the looms have been found in the ruined houses and even woollen garments themselves in the graves. These clothes have, by a millionth chance, been miraculously preserved in the frozen earth of the graves and can now be seen in Copenhagen Museum. There are long dresses for both men and women, stockings and hoods, all of coarse woollen cloth, spun and woven on homemade looms and distaffs in Greenland. They are maybe five hundred years old and they are still in a remarkable state of preservation. More than anything else they bring the Viking colonists to life for us.

IF one tries to draw together the facts we get from the ruins into a picture of life in Greenland in those Norse days—a picture of a

Christian community farming with domestic stock, of haymaking in the summer and milking cows and sheep, of feeding the animals in stalls, of clipping the wool in spring, followed by washing, spinning, and weaving, and of the making of *skyr*, butter, and cheese, and of life inside the thick stone-walled houses—one can be impressed by the Vikings' degree of independence of the outside world.

But even more outstanding is their isolation. They needed to be independent in this remotest colony. The iron and corn, which they can hardly ever have produced themselves, took years to reach them, and can never have come in any quantity. The journey to Greenland from Norway was a long and perilous one for the shallow-draught Viking ships, and many never reached their destination. News from Europe must have been years old by the time it got to Greenland. And Iceland, their nearest neighbour, was herself in need of the very same supplies—timber, corn, and iron—that the Greenland Norsemen lacked.

The ultimate cause of their dying out is unknown. The absence of supplies from abroad would be sufficient reason in itself, and it is thought that in the later stages they had skirmishes with the Eskimos. In these fights, if they were short of iron for weapons and suffering from malnutrition, they may easily have been worsted. The wonder is that by pinching and contriving they managed to sustain life and lived on, after all communications had failed them, right into the middle of the 16th century.

The Forsaken Fountain—Italy

*Here once there played a fountain,
Tossing its crystal feathers to the air,
Breaking through bronze and stone,
By naiad's urn and dolphin's curled mouth,
Conjured from hanging wood and far-off mountain,
Silvering the aureate hours of the bright south.
O happy water, Ocean young in sport,
That knew its childhood here, where are you gone?
Come not too late to wake the rose now shed
In the dry fountain's smoothly hollowed bed,
But with your harping and your laughter,
As would revive both rose and silent rill,
Hold festival in this deserted court.*

RHODA SPENCE.



The Treat

J. M. STEVENSON

THE sun was shining when Pauline awoke on the day of the Treat: not that she found this in the least remarkable, for at six years old her faith in English weather had not yet been shaken, and a wet day for the Sunday School Treat would have been unthinkable. But once breakfast was over she had to amuse herself until dinner-time, and the morning seemed unnaturally long. It was not so much eagerness for the afternoon's fun that made the hours drag, as an uneasy fear, which mingled with her excitement and somehow robbed her everyday surroundings of their usual interest. It would have been all right if she could have escaped outdoors and made mud-pies, or explored the fields and orchard, but she had been forbidden to go outside and tire herself. And whatever quiet corner she chose indoors to sit in and imagine what a Sunday School Treat would be like seemed to upset someone.

'Oh, what are you doing in the drawing-room, paddling over my lovely floor? I only beeswaxed it yesterday,' complained the vinegary tones of Aunt Flora. 'Now I'll have to rub it all up again! No one ever thinks of the extra work they make me. It's too bad!'

Chased out of there, Pauline climbed on the

parlour sofa with the button-box from the chimney cupboard and idly turned the contents into her lap.

'You know, I think you'd better put those buttons away,' warned Aunt Amy kindly when she came in to fetch the warming-pan for polishing. 'You'll only get into trouble, if no one told you you could play with them.'

Obediently Pauline put the buttons back in the box, and the box back in the cupboard, and wandered into the kitchen. Her mother, Mrs Rowe, was busy in there and Pauline would have liked to talk to her, but they couldn't very well have a private, grown-up conversation in front of her grandmother and aunts. The little girl wished they were back in their own small house near London, but she knew her daddy was away in a place they called France. The Zeppelins sometimes came over her home and frightened people, and there wasn't much to eat, so she and her mother spent long holidays at her grandparents' farm.

Her two unmarried aunts lived there, too. Aunt Amy was the nice one. She had golden hair and pink cheeks, and was very pretty; but she was sad, too, because there was someone called Charlie who was kept in prison by wicked men who might not even let him have

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the parcels of food Aunt Amy sent him. Sometimes, when she was alone, Aunt Amy cried about Charlie, and once Pauline had seen her and had had to promise not to tell anyone. Aunt Flora was the cross one, who was never well and never happy. She, too, had golden hair and her cheeks were pink, but she wasn't pretty at all, with her thin lips and sharp nose. She worked very hard, but wherever she went she upset people. Poor Aunt Amy was right under her thumb, and she was scornful about Charlie; indeed, Pauline believed Aunt Flora thought prison was a good place for him. Yet Pauline admired her Aunt Flora and tried hard to please and impress her: when she did unbend, she could be the nicest of them all.

The two aunts sometimes helped at the local Sunday school. They were not regular teachers, as they lived two miles from the village and couldn't go in bad weather, because grandfather never took the pony-trap out on Sunday afternoons. When they did go, they took Pauline with them if she was staying at the farm, and that was how she came to be invited to the summer Treat. Miss Pratt, the head-teacher, who lived with a sister and brother at the post-office near the church, had come on her bicycle specially to ask the aunts if they would help with the Treat, and to Pauline's bitter disappointment Aunt Flora replied at once with an emphatic 'No'. Pauline believed Aunt Amy would have liked to go, too, but she would never have disagreed with Aunt Flora in front of a stranger.

Then Miss Pratt must have noticed the dejected little girl, for she had suddenly asked: 'What about Pauline? Wouldn't you like to come to the Treat, dear?' Pauline had nodded shyly. 'That's settled then,' Miss Pratt said crisply. 'If her mother says she can come, send her along to the shop at three o'clock and I'll take her with me and keep an eye on her.'

But it was one thing to go to a Treat with your aunts, and another to go with someone you hardly knew, and it was this thought that was making Pauline feel uneasy now that the outing was so close.

AT last dinner was ready and Pauline was able to help set the table. She was not very hungry and the meal seemed endless, but at last it was over and it was time to get ready. She was thoroughly washed with Castile soap in a bowl of warm rainwater that had been

strained through muslin, and towelled until she glowed. Then her mother left her standing on the rug in front of the kitchen-range while she fetched clean clothes from upstairs. 'Which frock would you like to put on?' she called across as she reached the door.

Besides her Sunday silk frock, Pauline possessed three checked gingham summer dresses. One, the red-and-black, she had just taken off. The choice thus lay between the mauve-and-green and the blue-and-brown. 'I'd like the mauve-and-green, with my white hair-ribbon,' she answered decidedly.

'I think you really look nicer in the blue-and-brown,' hesitated her mother.

'You put on her what you think, not what she likes,' put in her grandmother sharply.

Mrs Rowe disappeared hurriedly so that she need not argue. Grandmother toiled all morning in the hot kitchen in her thick, black clothes, and by the time dinner had been cleared she was always tired and cross—'All mothered up', as she put it. Then she washed herself and went to bed until tea-time. To-day she had been delayed by the washing of Pauline and was even more cross than usual. She glowered at the little girl, who dug her damp, pink toes into the rag pile of the home-made rug, as if to lend herself security. The aunts hovered in the background, but grandfather, who might have taken her part, had already gone off to work in the fields.

It seemed a long time before her mother came back. Then Pauline was soon dressed in snow-white socks, shining brown slippers, and starched white underwear with lace edges. On top went the starched mauve-and-green gingham. She fidgeted as her red-brown hair was brushed round into ringlets.

'Stand still, dear, please,' urged her mother.

'Ah,' broke in the old lady, anxious to avenge her defeat over the frock, 'that comes with spoiling children. I had eight children, but I didn't have as much trouble with all the eight put together as you have with that one. Naughty girls like her don't *deserve* treats.' With that she waddled out of the kitchen.

When the white hair-ribbon had been tied to Mrs Rowe's satisfaction, there only remained the question of the handkerchief.

'Pin it on her frock,' suggested Aunt Flora.

The child's eyes silently entreated her mother against this indignity and she was finally allowed to take her little embroidered handbag with the handkerchief and six pennies, 'in case there is anything to spend them on'.

PAULINE was not a pretty child, but she made a charming little figure as she set off, starched and clean, her ringlets bobbing and her brown eyes full of awe and excitement at the adventure ahead.

The first part of the journey, down the field to the farm entrance, was easy, but out on the highway it was more frightening. The road was white and dusty and went straight to the village. On both sides were wide grass verges, and on these cattle were often pastured. Pauline was afraid of cattle. She knew people were not supposed to leave bulls unattended on the roadside, but often the herdsman wandered off if there was nobody about. Besides, she had heard her grandfather say that cows could be very awkward. Beyond each verge was a deep ditch and then a quick-set hedge. There would be no escape from cattle unless she could run to a gate in time and climb over. And then what would she do, in the middle of a field, her frock spoiled and Miss Pratt waiting for her? However, no such mishap occurred and she reached the shop in good time.

'Hello, Pauline,' greeted Miss Pratt, 'I'm glad you've come. You *do* look nice! Let's go straight over to the vicarage, the children are meeting in the garden there.'

The thought of the other children intensified Pauline's feelings of mingled excitement and fear, for she had had very little chance of mixing with children, and, although she longed to play with them, she didn't know quite what to do when she did get among them.

In the garden was the vicar himself in his black clothes and white collar. He was cutting flowers with a pair of scissors, so that each child should have a buttonhole. As he held a flower out, so an eager child ran forward to claim it. Pauline was amazed at their boldness. She had only previously seen the vicar in the pulpit, and if God himself had come down into the garden she couldn't have been more awe-stricken. Finally, noticing that the thrusting arms had ceased, the vicar paused. 'Is there any child without a flower?' he asked.

Pauline's shyness urged her to say nothing and hope she wouldn't be noticed, but a stronger impulse seemed to warn her that this would be a lie, and that to lie to the vicar in his own garden would be the very worst of sins. She therefore went forward timidly. She was joined by a boy who had only just arrived. The vicar went to look for buttonholes for

them. 'Oh dear,' he said, 'I'm afraid I've picked them all.'

Pauline, standing thus conspicuous, blushed for his embarrassment as much as her own. She was about to step back into the crowd when the vicar's glance suddenly fell on a Dorothy Perkins rose, climbing up an arch. 'Ah, here we are,' he said jovially. 'There'll be a lovely buttonhole for each of you.' Thereupon he severed a generous and prickly spray and handed it to Pauline. Someone promptly produced a safety-pin and fastened the rose on her chest, and she was doomed to wear this uncomfortable corsage for the rest of the afternoon.

TEA followed in the Sunday school at long trestle tables. There were mountains of currant buns and tea or lemonade poured into huge enamel mugs from large, decorated jugs that reminded Pauline of the toilet sets on the washstands at the farm.

Opposite Pauline sat Olive Dodd. This was unfortunate, for, all unknown to her, Olive had been first the desired friend and then the detested rival of Pauline. She was also six, and Pauline had seen and admired her in the Sunday school class although she had never spoken to her. Once she had begged her mother to let Olive come to the farm to play, but there had been objections: 'She's a village child'; 'Perhaps her mother wouldn't like her to come'; 'Who is going to fetch her and take her home?' And so Pauline reaped nothing from her request except that Aunt Flora, who had been the first to damp down the idea, remembered it one day when she was annoyed with Pauline and thrust at her: 'If you're so naughty, I'll have Olive Dodd here for my little girl.' After that, the last thing Pauline wanted was to invite Olive to the farm. Yet here was her enemy, quite at ease, enjoying her tea, laughing and chattering, and with one of the nicest of all the vicar's flowers neatly fastened to her dress. 'Perhaps Aunt Flora is right to like her better,' Pauline thought.

WHEN grace had been said after tea, the children trooped out into a meadow for games and sports. Pauline marvelled to see how these despised 'village children' knew just what to do and how happy and confident they were. It was all quite new to her. The other children, when not competing, stood about in

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knots. They stared at her silently, as cows look at one over a hedge, but they did not attempt to speak to her, and she would certainly never have dared to speak to them.

She finished up at the skipping competition.

Two grown-ups were turning a long heavy rope and children were trying to see who could keep up the most jumps without stopping the rope. A solid country child was skipping.

'Ninety-seven, ninety-eight, ninety-nine, one 'undred, one 'undred and one . . .' chanted the onlookers as the child came down like a sack of potatoes after each jump. It was clear she should keep on just as long as she had breath to skip with.

'That's right, Pauline,' said Miss Pratt, who happened to be hurrying by. 'Are you going in for the skipping? See if you can win the prize!'

Thus urged, Pauline obediently joined the queue for a turn, but she felt sure she would stop the rope, just by running in. Then she noticed two mothers, who had overheard Miss Pratt, looking at her darkly.

'Tisn't fair,' one said, 'to bring strange kids here and let them go in for the sports. The prizes are meant for the Sunday school children.'

The other woman agreed, and thereupon Pauline broke away from the queue as if she had never even thought of skipping. By the time Miss Pratt came to fetch her for the pierrot show the skipping was finished and she was asked no questions.

Forms had been carried out from the school-room and they sat and watched pierrots singing, dancing, and doing acrobatics. Half-way through the concert a bran-tub was brought round and each child dipped for a present. Pauline's looked exciting in gay, red paper, and she unwrapped it eagerly. Inside was a rather faded pink pincushion. 'Perhaps Mother will like it,' she said to herself doubtfully.

When the rollicking pierrots had become suddenly serious and sung 'God Save the King', the vicar blessed the children and dismissed them.

'MY brother will take you home in his motor-cycle,' Miss Pratt told her. 'Let's go home and find him. There'll be plenty of time for me to come with you and get back to help with the clearing-up.'

Pauline could hardly believe her ears.

Excitement at the prospect of a ride home dispelled her shyness and she skipped along happily to the little shop. Miss Pratt's elder sister was behind the post-office grille. She was severe-looking, but when she came round the counter to greet them she noticed the heavy, wilting rose-spray hanging from Pauline's frock and bent and unpinning it. 'You don't want this any longer, do you, dear?' she asked with understanding.

Pauline saw how kind her eyes were behind the pince-nez and warmed towards her.

'Now how would you like a few sweets to take home?' went on Miss-Pratt-the-elder. 'You can choose any kind you like.' With an expansive gesture she made Pauline free of the dozen or so bottles standing on the counter beside the grille.

It was a new idea to Pauline that anyone could dispense sweets freely from a shop without the usual ritual of weighing and exchange of pennies. The little girl felt it couldn't happen often and that her decision was therefore important. Her gaze passed along the row of bottles and finally rested on the one containing fat, round boiled sweets gaily decorated with multi-coloured whorls. 'I'd like those, please,' she said, and watched entranced as a cone-shaped bag was nearly filled with them.

Meanwhile the younger Miss Pratt had returned and announced that her brother was ready. Pauline thought he looked splendid in his leather motoring-jacket, flapped cap, and goggles, and as she was lifted into the front seat of the sidecar she felt like a queen entering her carriage. A few groups of children returning from the Treat were straggling through the village and Pauline was delighted to see Olive Dodd among them, staring curiously. Her heart seemed suddenly purged of envy. And along the road no straying cattle, tinker's carts, or tramps could occasion her any alarm; she could view with detached interest everything they passed. All too soon the white farm gates came in sight and Mr Pratt slowed down the motor-cycle. 'You'll be all right now, won't you?' he inquired. 'It's a bit too bumpy to go up to the house.'

'Oh yes, thank you,' the child answered, and waited for his strong arms to lift her out on to the road. As the motor-cycle turned she waved good-bye to Miss Pratt and then let herself carefully through the gate. She ran up the field feeling tremendously proud and pleased with herself. In her left hand was the

embroidered handbag with the handkerchief inside, still clean and folded: she had not lost or spoiled either. She was bubbling over to tell everybody about her ride and to offer each of them a sweet from the bag, which she held carefully in her right hand by the twist of paper at the top so that the sweets would not get sticky.

There was a light in the kitchen, and as she opened the back-door warm, spiced air greeted her. Aunt Flora had been baking cakes and was standing by the table arranging them on wire trays. She glanced up at Pauline. 'Well, you've got back, then?'

'Yes, Auntie, and what *do* you think? Mr Pratt brought me all the way home to the gate in his motor-cycle. And—' She was just going to hold out the bag of sweets.

But her Aunt cut in: 'I thought he would. When your cousin Hilda was here at Christmas they brought her home from the Sunday School Party. Gave her sweets, too!'

Immediately all Pauline's jubilation vanished. Instinctively she gathered up the bag of sweets into the cover of her small, hot palm and put her hand behind her back. Cousin Hilda was a mean and spiteful girl, who bullied other children and then told lies to escape punishment. Yet it seemed Hilda had treats just the same, though her grandmother had told *her* she didn't deserve them. Pauline felt completely humiliated, but she bravely swallowed the lump that had risen in her throat as her mother came into the kitchen at the sound of the little girl's voice.

'Hello, chickabiddy! Have you enjoyed yourself? I expect you're ready for your supper, aren't you?'

Pauline was longing for the privacy of her

bedroom and to avoid questions about the afternoon, so she replied: 'No, thank you. I'm not hungry. I'd like to go to bed.'

This surprising answer alarmed Mrs Rowe and she hurried Pauline into the parlour and prepared to fuss over her. But grandmother, now arrayed in her afternoon silks and gold watch-chain, pronounced judgment from her armchair with the authority of one who has reared eight children and experienced all their vagaries. 'Take her up to bed, Mother. She's excited and overtired. She'll be all right in the morning.'

For once Pauline was grateful to her, and hurried upstairs ahead of her mother so that she could push the sweets, now reduced to a bulging lump of stickiness coated with white paper, out of sight under a carved bracket on the dressing-table. To-morrow she could retrieve them and throw them into the duck-pond.

Mrs Rowe undressed her, washed her, and heard her say her prayers, but she did not even notice that the handbag and handkerchief had come safely home. At last she went downstairs.

Pauline was left alone in the gathering dusk. She realised how hungry she was, for she had felt too shy to eat much tea. If she had been at home, she could have gone downstairs again and asked for her supper, but she knew that to change her mind now would only prove once more how tiresome and spoilt she was. And so she curled up in a position that she believed made her feel a little less hungry. She was too tired to cry, but as she closed her eyes she sighed and thought: 'Perhaps if I had worn the blue-and-brown dress it would have been better.'

The Passionate Astronomer to His Love

*Come live with me and be my love,
And we will all the pleasures prove
That planets and magnetic fields,
Or sun or moon or meteor yields.*

*And we will sit upon a gate,
And hand in hand will speculate
Upon cosmology and the
Terrestrial source of energy.*

Love's Answer

*I'll sit with pleasure in the dark,
And hand in hand the stars we'll mark;
But not, dear sir, upon a gate—
Pray come and view with me at eight.*

F. M. H. B.

Native or Foreigner

Indigenous and Non-Indigenous British Flora

RONALD K. R. TAYLOR

IT comes as a surprise to anyone starting out on an intensive study of British flora that many of the trees, shrubs, and flowers which he has always regarded as native to these islands are, in fact, foreigners that have been introduced from abroad, sometimes deliberately, sometimes accidentally. The close affinity between the flora of Portugal and that of south-west Ireland is the classic example of the accidental dispersal of seeds in human garments and the hair of animals at the time of the Iberian colonisation of Ireland.

The list of truly British plants, particularly conifers and, to a lesser extent, broad-leaved trees, is a very short one when compared with that of other countries, even in the temperate regions of the world. This is thought to be due to the fact that the British Isles were separated from the European continent during the later, and possibly also some of the earlier, glacial periods, with the result that the process of recolonisation and re-establishment by plant species after the retreat of the ice was much slower and less complete than on the great land masses.

The birch, ash, alder, hazel, hornbeam, elm, holly, scrub-oak, hawthorn, elder, the buckthorns, many varieties of willows and poplars, and the wild apples, plums, cherries, pears, and the rowans are truly native to most parts of the British Isles. The great or English oak, the beech, and the common maple are native to southern England, and were almost certainly introduced by man into Scotland and northern England, though at what period is not known. The only truly native conifers are the Scots pine, the yew, and the juniper. It is interesting to note that although there are vast woods of Scots pine in southern England, that tree is not in any way native to these parts.

SOME trees are, from their names, obviously introductions. Among these are the Lombardy poplar, which, all the same, is not a native of Lombardy but of Asia Minor and reached Italy only a decade or two before it was introduced into England in 1758; the cedar of Lebanon, which was introduced into Britain early in the 18th century; and the deodar or Indian cedar, which was introduced in 1831. The Corsican pine and its near relative the Austrian pine were introduced in 1759. At that time the latter was thought to be a maritime variety of the Scots pine, and was not identified as a separate species until 1835.

The Chile pine, or monkey-puzzle, was discovered by the Spaniards on the west coast of South America about 1780, but it was the Scots botanist, Archibald Menzies, who introduced it to Europe several years later. One of the seeds brought back by Menzies grew into a fine tree at Kew, where it lived until as recently as 1892.

The only spruces found in Britain to-day are the Norway spruce, which has been with us for four hundred and six years, and the Sitka spruce, a native of the Rocky Mountains and the west coast of North America, which was introduced in 1831; but examinations of the upper beds of the Tertiary formations show that there were varieties of spruce-trees in Britain at that time. Study of the seeds found in the Tertiary formations in the Thames valley indicate that the London flora of that era was that of a tropical rain-forest, similar to those found in India and Malaya to-day.

The holm or evergreen oak is a native of southern Europe and North Africa and was brought to England in the 16th century, and the Turkey oak, a native of the Levant, was introduced in 1735.

NATIVE OR FOREIGNER

THOSE trees which are not so obviously foreigners include the plane-tree, a native of the Levant, which was introduced in 1561; the sycamore, which was brought from Europe in the 15th century; the lime, which is now accepted as a foreigner brought in from Europe, though the date of its introduction is not known; and the horse-chestnut, which was introduced to Europe by the Romans, from Asia Minor, and reached England in 1550. Until a hundred years ago the sweet-chestnut was regarded as a true native of England, but it has now been established that it was brought to this country by the Romans from Greece and Persia.

The walnut, a native of the Himalayas, was also introduced to Europe by the Greeks or Romans, and reached England about the middle of the 16th century. The bay-tree, or true laurel, is a native of southern Europe, and reached England in 1562, and the laburnum was also introduced from south Europe, though at what actual date has not been ascertained. It is mentioned, however, by Gerard in 1587.

The two larches, the European and the Japanese, are also foreigners. The European reached England in 1629, and the Lowlands of Scotland in 1725. The Duke of Atholl introduced it to the Highlands in 1728. The Japanese larch followed in 1861. The hybrid, or Dunkeld, larch may almost be said to be a true native, as it originated in Perthshire sixty years ago from the accidental fertilisation of flowers of Japanese larch-trees from a near-by plantation of European larches. This hybrid promises to be a valuable timber tree, possessing as it does qualities neither of its parents has.

The silver fir was introduced from Europe in 1603, and from America came the Weymouth pine in 1705, the cypress and the Douglas fir in 1828, and Lawson's cypress and the Red cedar in 1854. David Douglas, after whom the Douglas fir is named, though it was actually first discovered by Archibald Menzies, was an intrepid collector for the Royal Horticultural Society and was responsible for introducing many species to this country. An amusing story is told of Douglas shooting cones from a tall tree on the coast near Vancouver while the Indians stood round wondering whether they should kill this white man who was so obviously mad.

From the evidence found in New Stone Age dwellings in Britain scientists have deduced

that Neolithic man, when he brought corn and flax from the Mediterranean, also accidentally introduced such wild-flowers as fumitory, spurrey, corn marigold, sun spurge, fool's parsley, knapweed, and white campion. Even to-day, in most north European countries, these plants occur as weeds of cultivated ground rather than as truly wild flowers. I have even heard it suggested that it was the Romans who introduced the nettle into Britain.

MOST of the introduced species mentioned have become completely acclimatised and thrive and reproduce themselves outside of plantations and gardens. This is hardly surprising when you consider that in a single year an acre of mature Norway spruce will produce upwards of 4,500,000 seeds, an acre of European larches 11,500,000 seeds, and a single Douglas fir anything from 50,000 to 180,000.

Even some of the true exotics have adapted themselves very well to British conditions. The Australian eucalyptus flourishes in places as far north as Aberdeen and Argyllshire, and in the mild climate of the west coast azaleas, rhododendrons, magnolias, New Zealand tree-ferns, and bamboos thrive as well as the native birches. In one garden I know at Arisaig are several rhododendrons that have never been known to flower before outside of China. The policeman's helmet, which grows in hedgerows all over southern England, is a balsam from the Himalayas, which was originally a garden escape.

Some plants which one is apt to regard as peculiarly Scottish have, in fact, a very wide distribution. The Scottish bluebell is one of the commonest wild-flowers throughout northern Europe, Russian Asia, the United States, and Canada, and even far north of the Arctic Circle, and the Scottish heather is the commonest of the ericas from the Ural Mountains to the Atlantic, and in Canada and the United States. Even the great *Onopordon Acanthium*, the Scotch thistle, the heraldic emblem of Scotland, is common in Central Europe, Russia, and parts of Africa. In recent years a few—possibly garden escapes—have been found in England; but, so far as I know, not one single wild one has been found in Scotland.

On the other hand, Scotland can boast of several plants found nowhere else in the world,

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and many which are far more common here than elsewhere. These include the *Primula scotica*, a tiny purple flower with a golden centre, which is found only in Sutherland, Caithness, and Orkney; the dwarf mountain-willow, which, although never more than two inches high, is actually a tree, and which grows on Ben Lawers and in the Cairngorms; several of the *Lychnis* or catchflies; several willow-herbs; and several saxifrages which are found only in the hills of Ben Lawers, Clova, and the Cuillins. In some of the Western Isles are varieties of a number of wild-flowers, including eyebrights and orchises, that are quite different from the parent stocks.

Sedum anglicum, the English stonecrop, is much more common in Scotland than in

England, and of the thirteen hundred and fourteen varieties of this family listed, more than fifty are found only north of the Border. The dwarf birch (*Betula nana*), which was for long regarded merely as a stunted birch-tree, is now regarded as a distinct variety, and is plentiful in Scotland, but met with only occasionally in the hills of north England and Wales.

Another interesting point is that many flowers, usually regarded as garden escapes, are, in fact, true native wild-flowers. These include the mallow, *myosotis* (forget-me-not), cornflower, columbine, daffodil, snowdrop, and orange hawkweed, though when these are found near to human habitations it is difficult to establish whether they are, in fact, true examples of the wild species.

The Elm

('Ellum hateth mankind, and waiteth.')

*Three centuries it waited; at each spring
Uncrimped the little crenellated leaves,
And loosed its flowers, blood-dark, like the mulberry,
Ripeness, corruption, colour of agony.*

*Over the meadow the lacy net of shadow
Drew in the shoals of violets every May.
In the thick green penumbra, head in hands,
Boys chewed the rusted sorrel's sour delight,*

*Watching the lazy, clumbering clot of shadow
Stretch over white figures on the fresh green ground.
Laughing faces were dark, then suddenly splashed
With sun and summer. But, brooding still, the tree*

*Saw on each side its cresting neighbours fall,
Hewn for the waggon or the wheel-backed chair.
Hands rubbed to the smoothness of a breathing pelt
All the crabbed resistance of the bark,*

*And narrowed to the mazer and the bowl
All the wood's pride, all the leaves' stir and whisper,
The fresh juice of the spring in jade-green quick,
The toadstool yellow, mild-as-rain decay.*

*It saw them fall, and anger in the sap
Turned to an evil, pestilent corrosion.
Waiting was ripe; sudden the groan and snap,
And, with his own, man for the tree's life pays.*

MARGARET STANLEY-WRENCH.

My Kingdom for a Horseman

II.—The Psychology of Owners

CAVALETTI

'The less a man knows about an 'oss the more he expects.'

MR JORROCKS.

NO book these days is worth a bale of hay unless it has at least a chapter on psychology. In my young days we called it horse-sense, and it means much the same thing.

To be successful in training humans and making them into satisfactory owners it is very important to have a real understanding of the way their minds work, and so of the motives that underlie their actions. In my opinion no human being is ever born vicious; it is bad handling and mismanagement that make them so, and once they get into bad habits it takes a lot of time and patience to cure them, while the really bad cases are seldom worth it, as you can never rely on them. So let kindness be your watchword; give rewards for a good effort, such as a nice collected canter, flexing perfectly so that they feel a glow of pride in their riding.

You must build up their confidence, too, so as to secure their willing co-operation at all times, for humans are extraordinarily nervous creatures and easily discouraged. Never, never punish them unless you are quite certain it is well merited, and then make sure you do it promptly, so that they associate the punishment with the fault. For instance, if they jog you in the mouth from temper, don't wait until you are halfway home to throw them off, but administer the chastisement there and then; if it is in public, so much the better, for vanity is a weakness you can exploit to the full.

Humans have very poor memories; I've known them do the same fool thing over and over again until you wonder if they will ever learn, but they are creatures of habit, and once

a lesson is well learned they seldom forget. Gradually you will find them coming to hand, rewarding your patience by their efforts to meet your wishes, and in the end you'll find them wonderfully obedient to your slightest wish or command.

Never let them get the upper hand at any stage in their training, and if there has to be a battle, choose your own time and place and make sure you come out on top—most of them won't try it twice. One of the severest punishments of all is to leave them to walk home, particularly if they are wearing well-fitting top-boots. A little of this and their spirit is soon broken. For only slight misdemeanours you can let them catch you, and return to the stable in a spirit of mutual forgiveness, but if you want to administer a sharper lesson, then, as I say, get them off, wander away nonchalantly and start to graze. Wait until they have picked themselves up and their hand is almost on the bridle, then give a playful toss and trot a few yards, and go on grazing; they'll soon tire of it and give in, and it's grand sport.

So is lying down suddenly, the more muddy the spot you can find the better; they are always claiming to have a sense of humour, and this will help develop it. By the way, avoid the ones who when relating a mishap of this kind say 'I simply had to laugh' or 'I must tell you something very amusing', for you can bet your last oat they took it out on the horse at the time and didn't find it amusing at all.

Sometimes in drastic cases it is possible to get rid of the saddle, if they have forgotten to girth it properly or look after the buckles, and I must say there is no greater triumph over a wilful owner than cantering off home in a carefree way and seeing him pick up a

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heavy saddle and start to walk several miles back. I do want to stress, though, that such punishments are only a last resort, and that too much correction can easily make an owner testy, and there's nothing so difficult to cure.

IT will well repay you to spend some time cultivating your owner in the stable or paddock so as to get on friendly terms. It's worth the effort of walking over, even if it's from the shady corner at the far end, particularly if there are visitors. When you hear them say 'How sweet! Look, he knows me already', half the battle is won, for once they trust you they are far easier to handle. It costs nothing to neigh when you see them, to let them get accustomed to your voice. They love it, and it's generally worth a carrot or two. It all goes to build up that affection which has been one of the greatest achievements in our long history.

Don't as a rule let them down in public if you can help it, as it takes a long time to regain their confidence, and although one must always remain master of the situation, it is a good thing to relax now and again and allow your pupil to relax also, just slopping along anyhow. It also pays to let them show off a bit, so long as it is only high spirits; once an owner is well broken it does no harm, and shows you are pals. Owners set a lot of store on this and will forget thereby many humiliating moments at home.

Humans are very apprehensive. They take fright at a noisy lorry or a piece of paper, when you'd think they had been used to such things all their lives. You can feel them tense when they catch sight of such things; they quiver with alarm and cling to the reins, so keep calm but firm. You may have to turn round several times before they go quietly. Of course, they differ a lot, and most of them can be quite courageous at times. Some of them take a drench called alcohol, which gives them a lot of courage for a short time, but it is apt to make them excitable, and even reckless, for an hour or so afterwards. I had a nasty fall once after my owner (not my present one) had taken an overdose; I couldn't do anything with him at all—a terrifying feeling.

There's a wonderful sense of well-being in setting forth on a fine morning with a perfectly-schooled owner in the saddle. At times like that all one's efforts toward educating them are rewarded.

HUMANS can reason quite a lot, and one should make full use of this mental attribute in their training, so reward them for good work and make sure they understand what it is you want them to do. If they suddenly become obstinate or disobedient when they are usually docile, make quite sure before you administer punishment that there isn't something to account for it; they may be uncomfortable or even in pain. I have known too tight breeches make an owner with a normally charming temperament fidgety and irritable. In cases like this it is best to abandon the lesson, walk them quietly home and try again next day in a different pair.

Humans have very poor hearing and sight, and as for their sense of smell! They can hardly tell musty oats right under their noses. But the human voice is their strongest point. They'll talk all day long, particularly women, and it is when their attention wanders that you have to use 'corrective' aids to bring them to hand. They are gregarious creatures and do best in company, although I prefer to school them alone.

Never lose contact with your rider; it is the first principle of good ownership. Shying at something that isn't there gets their attention quickest, particularly if you have just heard that little click-scratch of match or cigarette-lighter. Then you can try jumping sideways or whipping round—very light aids, nothing coarse or heavy—and you will finish the lesson without any further trouble. But when they have learned as much as you want for the day, then relax and don't let yourself be tempted to try to achieve too much all at once.

You want an owner to give of his best, so study his comfort and contentment and don't ask too much of him at once, especially if he isn't fit. Let him enjoy his lessons and you will make steady progress, even if at times it seems slow. Obedience is largely a matter of habit, so lay sound foundations of training early on. Once you overcome humans' natural timidity and suspicion and their desire for self-preservation you will find the most unpromising ones improve out of all knowledge. I am talking about the average owner, of course. The really hardened cases call for special handling and experience, with many a tussle, not always within the power of the amateur, and constituting highly-advanced technique in ownership.



A Step Nearer

IAIN M. MURRAY

EVERY summer, for part of July and August, I go back to the Borders. Every summer, in those hopeless months, I fish Tweed for trout, and catch grayling. For the last eight of those summers I have fished for salmon on one day in each holiday, and I still have not landed one. But I am now a step nearer, and if you know Tweed, even so distantly as only to have seen its stream as you tour the Borders, you may like to hear how it happened.

You must first accustom yourself to my speaking of 'Tweed', not 'the Tweed'. This may not be the usage all the way along the valley, but on the stretch which I know best, above and below Kelso, a local angler will always speak of 'Gaun doon Tweed tae Sherptilaw Mill' or 'Gaun up Teviot tae the Kay Braes', and one falls easily into the local idiom in a place so dedicated to the rod that every stream and every pool has its name.

To me, and I think to most casual anglers, there is a tantalising attraction about these river names, and not least when the origin has been so long forgotten that often not even the oldest fisher can suggest an explanation. The Brose Stream, the Butterwash, Benjie's Burn, Little Davie—they are good names, and a trout out of one of them has a kind of

individuality that no fish can earn in the anonymity of a loch.

So year by year I have waded those streams and have come home with a basket so light that in the Highlands it would have ended my fishing, but always with something new of bird or beast or fish from the broad waters of Tweed.

FOR some miles Tweed is the boundary between England and Scotland and in this stretch of water runs the stream where I try to catch my salmon. It is a fine run of water, fast and shallow above the Learmouth Road End, quiet and deep at the Back o' the Wa', and turbulent and dangerous at the Broken Cauld. You see it at its best on a summer evening when the lights of Coldstream appear one by one far over the wide loop of the river and the peewits and oyster-catchers are calling on the long shingle-banks of the Scottish shore. That water is rented for one day a week by a friend of mine, a passionate angler and a greater naturalist—and the only person more determined than I that I shall land a Tweed salmon.

Eight summers is a long time, but this year, as I sat by the elm at the foot of the Learmouth

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stream and put up my rod, I saw little change. Up-river lay the long stretch of the Temple Pool ringed with rising trout—or perhaps the accursed roach; in front, the level pastures of the Lees alive with flocks of late summer birds; down-river, the outlying houses of Cornhill hidden in trees and the sun glinting on the broken stream above De'd o' Mouth. A lovely spot indeed, and not a soul there but Andrew, content to cast a dry-fly for trout while I set out once again to seek my Grail.

As usual, for anglers are creatures of habit, I fished fly, a Black Ranger, beginning above the elm and working down to the tail of the fast water. But in all that fine water, with two fish showing every now and then, I had not, in the Border phrase, 'a single kind look'. Back then to the stream, with a brief glance into a late wagtail's nest in the brush at the foot of the elm, and a regretful change-over to spinning tackle and a minnow—for what angler would not rather land his big fish on fly?

THERE is a mechanical monotony in throwing out a heavy metal object and winding it in, and my long futile practice had so accustomed me to it that I had time to let my eye wander enviously to Andrew, now happily resigned to a troutless afternoon and intent upon the cloud of gathering martins dipping over the long pool. But I suppose that even a somnolent fisher has some sort of reflex-action and my rod-point lifted almost of its own accord when, in the race of the current, the minnow stopped and the line ceased its curving path to the bank. Had the water been shallow or the current slow, I would have known that I had presented Tweed bottom with yet another offering, but here not even I could sink a devon, and this must be my salmon.

It was, and my sleepy wits woke to frantic action. After a moment of stunned incredulity, I astonishingly did two correct things instead of the dozen wrong ones so natural to me. I got below the fish and I called to Andrew. Never have I seen a man so pleased nor a helper so admirably silent. But how urgently I wished that my rod were a fifteen-foot greenheart and my line good silk, so little did I trust a stiff spinning-rod and the stout cobweb we call nylon.

I shall not weary you with the journeyings of that fish. He was heavy but unenterprising,

and for a long time he cruised about the pool, twice at such a length of line that I feared, in my ignorance, that he might ground himself on the shallows of the Scottish shore. Three times while I played him the little wagtail visited her nest with food, and once flew close under my line as it cut the water below the elm-tree.

Then everything went dead. I could have wept. Not even the faintest vibration travelled up to my trembling fingers, and I thought, as did Andrew, to judge by his stricken look, that the salmon had transferred the hook, or at least the cast, to some sunken log or branch. Morosely I made to hand over the rod for expert confirmation and as I did so a slow and leaden movement began, downstream. I still had him, or the hopes of him, but Andrew's heart did not soar with mine. This was weed, he said, the worst of weed, and my fish was towing something like wheat-sheaf, a sore strain on a light line. Not a good prospect, I thought, but the sun still shone, and the hosts of peewits called triumph, not disaster, as my thin thread of nylon cut back, no matter how slowly, to the English shore on which I stood. Then, not ten yards from the rod-point, in twelve feet of ugly water, there came again that sullen check. But this time there was a movement, a trembling and grating along the line, which even to me, an ignoramus, spelt calamity. I looked miserably at Andrew. He nodded and told me in a few expressive words that my salmon was rubbing the cast on a rock far down among the indestructible forests of weed.

'Try to move him,' I said, 'at any cost.'

'No good,' said Andrew. 'Just keep the strain on and see if you can get his head up.'

But I knew that this was beyond my skill. 'Take it,' I cried, 'and do something useful, even if you lose him!'

'All right, but I don't like it,' groaned Andrew. 'I don't like it at all,' and as the rod left my hand and settled in his, the line gave. My first Tweed salmon was gone, and, deadliest of sins, I had handed it to a friend to lose.

WE looked at the nylon cast, frayed to the thinness of a cotton thread. We peered hopelessly into the weedy recesses of the stream. Then, as we sat on the bank and smoked, I suddenly realised, to my astonishment, that I was not inconsolably sad. I

looked around me at as fair a stretch of water as any in Scotland and at the green beauty of the river meadows, and I know that if I had lost my fish I had gained another year of anticipation. Perhaps that means that I am a fisherman of weak passions. Little I care. Better men than I have mourned on the

banks of Tweed, but none has found more pleasure in its serenity and peace. And there, eyeing a trout rising below the elm and tying on a dry-fly with his deft fingers, was Andrew, and I knew that so long as he lived by Tweed, and had a rod to lend and a stream to fish, my Grail was still before me.

Welsh Folklore

DAVID OWEN

IN Wales old beliefs die hard and customs hallowed by the years make a brave stand against the inroads of modern civilisation. A century ago the greater part of Welsh life was conditioned by ancient customs and traditional beliefs, some having their roots in pagan times before the Roman invasion. With the advent of improved communications, many old ideas have retreated, but a few still linger on in their refuge among the hills of rural Wales.

It is unlikely that the modern farmer will fear to set his hens on St Valentine's Day lest the eggs be addled, and he will not tie red ribbons to the tails of his cattle as a charm against witchcraft. Yet he will not rely entirely upon the B.B.C.'s forecast of the weather, for he will have some regard to the behaviour of his animals. If the cows lie down in the fields or the pigs carry straw in their mouths, he will expect rain. Some of the older people may still entertain superstitions about the different days of the week. Friday, for example, is considered a bad day on which to prune fruit-trees or to set eggs, but good for churning butter.

Perhaps tradition exerts its strongest influence in connection with the country remedies which are still advocated for the treatment of certain ailments. To carry a raw potato or a nutmeg in the pocket is believed to be a cure for rheumatism, while there are

many who have a firm faith in elder-flower tea as a remedy for colds. There is one farmer living near Llandovery who regards the dried blossom of the elder-tree as a panacea for all ills. Any member of his household who complains of being unwell is given a hot brew of elder-flower, and the treatment rarely fails. A herbal remedy once prescribed for hydrophobia was the external and internal application of an infusion in water of a powder obtained from dried scarlet-pimpernel. White-moss is a valued specific in the treatment of inflammation. A favourite cure for sties on the eye is to press them with a wedding-ring warm from the finger of the wearer. A quaint prescription for ringworm in vogue until recently was the 'sweat of the axe'. A bonfire was made and thick smoke produced by throwing damp hay on the top. An axe was held in this smoke, and then drawn across the part of the body affected so as to leave the sweat behind.

IT would be surprising if these traditional remedies did not have their own special practitioners. There are still in Wales men and women reputed to be wise in the lore of healing although not qualified as doctors in an orthodox manner. In the past they were much more common than they are now, and they often effected remarkable cures. Some

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achieved wide fame for their skill and success. Not so many years have gone by since there was an old man in Denbighshire who drew patients from all parts of Wales and beyond. Abrupt and stern in manner, he would insist on his patients obeying his instructions in every detail. He never accepted payment, although many of those who sought his advice were wealthy people. Similarly, there were within living memory two brothers in Carmarthenshire noted for their healing powers. They, too, would never accept payment, but their neighbours and grateful patients found other ways of repaying them. The brothers had a small farm and would sometimes hold a sale of timber. People from miles around would flock to the sale in order to bid high prices for the wood, which thus sold for sums far exceeding its value. Such men have existed in Wales from time immemorial, sometimes handing down their secrets from father to son.

The most famous family of this kind were known as the 'Physicians of Myddfai'. A curious legend is woven around their origin. In the 12th century a young man saw a beautiful girl sitting on the surface of a lake in the Black Mountains. After some trials he won her as his bride, but before they were married she stipulated that if he struck her three times she would return to her home beneath the lake. He readily agreed, and she brought with her many fine cattle as a dowry. In the course of years three sons were born to them, but, by the time these boys had grown up, the unfortunate husband had struck his wife on three occasions. Although the blows were no more than playful taps, she kept to her word and vanished beneath the waters of the lake. All the cattle followed her; even a little calf which had lately been killed was restored to life to follow its mistress home. Later she reappeared to the sorrowing family. She told the eldest son, Rhiwallon, that he was to devote his life to healing the sick and she instructed him in the use of beneficent herbs. Rhiwallon soon became famous as a doctor and gained the patronage of a prince of South Wales. His descendants for many generations—down to the last century—inherited Rhiwallon's knowledge and were justly famed throughout the land. The following example of their prescriptions makes picturesque reading—'Things that are useful to the brain: smelling musk and camomile; drinking wine moderately; eating the leaves of sage frequently;

keeping the head warm; washing the hands often; walking and sleeping moderately; listening frequently to a little music and singing; smelling roses; washing the eyebrows with rosewater; drinking on going to sleep; and a light diet.'

THE rural community has no monopoly of folklore. A superstition once prevalent in lead- and silver-mining areas related to those strange little people called 'knockers', who inhabited the mines. They were said to be eighteen inches high and responsible for curious tapping sounds which could often be heard below-ground. Some miners regarded them as benevolent sprites whose presence indicated the places richest in ore. Sceptics accounted for the sounds as echoes of the miner's own picks or as the dropping of water. Yet others attributed the noises to the work of malevolent spirits intent on frightening away the human intruders. This third theory was held by the young man to whom George Borrow spoke. 'Once on a time,' said the young man, 'I was working by myself very deep underground, in a little chamber to which a very deep shaft led. I had just taken up my light to survey my work, when all of a sudden I heard a dreadful rushing noise, as if an immense quantity of earth had come tumbling down. "O God!" said I, and fell backwards, letting the light fall, which instantly went out. I thought the whole shaft had given way, and that I was buried alive. I lay for several hours half-stupefied, thinking now and then what a dreadful thing it was to be buried alive. At length I thought I would get up, go to the mouth of the shaft, feel the mould with which it was choked up, and then come back, lie down and die. So I got up and tottered to the mouth of the shaft, put out my hand and felt—nothing. All was clear. I went forward and presently felt the ladder. Nothing had fallen; all was just the same as when I came down. . . . The noise was caused by the spirits of the hill in the hope of driving the miner out of his senses. They very nearly succeeded.'

A belief which is still held by some miners is that pit disasters are often preceded by the appearance of strange lights. This notion of a sign of warning of death is one deeply rooted in the Welsh soul. There are, for example, many people to-day who claim to have seen '*y cannyll gorff*' (the corpse candle). This is

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a light, sometimes white, sometimes coloured, which moves about until it comes to rest at a place where death will shortly strike. To come into contact with a corpse candle is fatal. A phenomenon which served a similar purpose was the '*toillu*' or phantom funeral; this foreshadowed an actual funeral by a week or two. Many people will testify to having witnessed such a procession as it made its way to the churchyard. Some have themselves been drawn into the concourse and have felt the press of a large crowd about them.

FOLKLORE is always strongly concerned with the fundamental events of life, such as birth, marriage, and death. Some pleasant marriage customs survive in Wales, although weddings are not now the riotous occasions they once were. It was formerly the custom for the bridegroom and his friends, mounted on horses, to chase the bride and her party, who were also mounted, and not until the bride was captured and brought to church could the ceremony begin. Nowadays this is not practised, but shots are fired over the car taking the bride to the chapel. The procession of the bridal party is thus accompanied by a fusillade, and the waiting bridegroom is

warned by the approaching sound of gunfire that his bride draws nearer. The bride's car is halted frequently along its route by ropes drawn across the road. A payment in silver has to be made before each rope is lowered. Sometimes arches of flowers are erected across the roadway, and these add much to the gaiety of the occasion.

THESE are but a few of the customs and beliefs which make up the pattern of Welsh folklore. Wales also has its fairies, or *tylwyth teg*, but these belong to the realm of fancy, and it is long since they played any important part in the national life. The Celtic gods, too, have slipped softly into a forgotten Avallon. Gwynn ap Nudd, perhaps, is remembered by a few old folk who have heard his hounds baying on a stormy night. These 'dogs of hell' were reputed to chase lost souls across the sky, and were once much feared. Now, like the old Celtic pantheon, they are merely tales for a winter's night. Though much folklore has ceased to be a living force, enough remains to colour the consciousness of a people who are as rich in imagination as they are tenacious in remembrance of things past.

Planes Work for Wool

Aerial Land Fertilisation in New Zealand

TOM TYNDALL

A WELSH farmer has lately been using an aeroplane to spread superphosphate fertiliser on his mountain pastures. This practice has been common in New Zealand for some time past, and I have watched it being carried out on a sheep property eighty miles north of Auckland. They believe there that it means more of New Zealand's excellent

mutton for British tables, and more of its wool for Yorkshire mills.

The New Zealand farmer uses planes to drop the superphosphate, the 'super' as they term it, on broken or steeply-sloping land where tractors cannot work. They call this type of ground 'marginal land'—land which will not support more than two ewes to the

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acre. There is a lot of this marginal land on the steep sides of New Zealand's lofty mountains, and it is thought that no less than ten million acres can be brought into production in due course. But that is looking a long way ahead, and at present this aerial topdressing of mountain pastures is being operated only in a small way.

The day I saw the planes on the job the weather was heavy with a fine Scotch mist, and there was hardly a breath of air. Driving along the switchback gravel road, I sighted the farmer and his party on a flat-topped knoll, where two or three cabbage-trees drooped against the grey sky. As I approached, a small aircraft took off from the knoll and flew up the valley. It banked, crossed to the farther slope, and came back towards the knoll. Suddenly a long yellow cloud issued from beneath it and began to fall slowly towards the earth. The superphosphate was being spread over land inaccessible in any other way. New Zealand farmers have top-dressed their pasture with superphosphate for many years now. Where possible, tractors are used, and, before the coming of the tractor, the fertiliser was sown by hand. The farmer whose land was now being topdressed told me that he once had a huge Maori who could sow four tons a day by hand. That sounds incredible, until you see the size and strength of some of the Maoris.

On the knoll were several cars owned by neighbouring farmers who had come to watch the work and to consider whether they would have their own marginal land topdressed. There was a tractor, too, and a bulldozer, used for making runways for the aircraft on the by no means smooth surface of the knoll. There was a large table-top lorry, with two long arms sticking out from the front of it, like the antennae of some gigantic insect. This was a hydraulic loader. Between the ends of the arms swung a hopper, which could be brought back over the cab to rest on the table-top, where a group of massive, brown-skinned Maoris were lounging waiting to empty five bags of fertiliser into the hopper.

I HAD time to make a short inspection before another plane went up with its five-hundred-weight load. The airmen had decided that the wind—what there was of it—had changed, and they needed a new runway at right angles to the one they had been using. The tractor

and bulldozer went to work. Between the cabbage-trees and the edge of the knoll there was just room to make a runway sufficiently wide to enable the aircraft to take off and land.

There were two planes, both Tiger Moths. The front cockpit on each of them had been converted into a container large enough to hold five hundredweight of superphosphate, which the pilot could release by pulling a lever when he was over his objective. I watched the loading of a plane. The arms folded back over the cab of the lorry, and the Maoris quickly emptied five bags into the hopper. The truck lumbered over to the plane, the arms came forward, the hopper was emptied into the plane's container. The whole process took an incredibly short time. One of the pilots assured me that when they were working normally neither of the two planes being used was on the ground for more than forty-five seconds at a time.

By now the runway—such as it was—had been finished, and one of the planes was ready to take off. The runway was certainly not more than fifty yards long. I took up my position on the edge of the knoll, where the plane was intended to take the air. She started forward slowly over the rough ground. By the time she reached the edge, level with me, she must have been doing quite twenty-five miles an hour. I held my breath. She dived over the edge, bounced on the slope of the knoll, but failed to take the air, bounced again and continued her way downwards, and after a third bounce, by some miracle, became airborne.

I stared after her as she flew up the valley. While she released her load, and the yellow cloud grew longer, the second plane came roaring towards me over the bumpy runway. Exactly the same thing happened. Three bounces, and away up the valley. And so it went on, until it seemed natural for Tiger Moths to go bouncing down hillsides before taking the air.

It was, however, a bad day for the planes. After a couple of hours' work the rain came down so steadily that the airmen had to call it off. Since the work was done by contract, this meant a loss for the operators. They had plenty of work ahead of them, and time lost meant wages lost. Their contract was to drop two and a half hundredweight of fertiliser on an acre for eight shillings, the farmer supplying the fertiliser and transporting it to the

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spot. The two planes could drop thirty-three tons in a full day's work.

THE operators of the service were a small band of New Zealand airmen who found the work more suited to their tastes than sitting at a desk in an office. They had formed a private company for the purpose. One of them had supplied the two planes, another had invented and built the hydraulic loading hopper. One of them, a cheerful lad, not quite so at home with a Tiger Moth as the others, had been in bombers during the War. To him it was a good show that, when he went out on a prang now, he should be spreading fertiliser on the land instead of dropping bombs on people.

This company, a term which can be used of them in the best sense, was entirely self-supporting. It was neither subsidised nor sponsored by the Government. It had its own planes, arranged its own work, and owned its own caravan, in which the men all lived. They relied on the farmers to make them landing-strips, which were sometimes pretty rough, and they flew their planes from property to property. There are several of these companies in New Zealand, most of them I believe, very pleased with the job they are doing and the progress they have made.

The Government of New Zealand has itself

done some work in aerial land fertilisation, but the men I met were inclined to think the Government's ideas rather ambitious. They could not see that large York aircraft, operating at what must of necessity be distances of two or three hundred miles from base, could be an economic success, even if each of them dropped ten tons at a time. Their own Tiger Moths, though carrying only a quarter of a ton, could operate right on the spot and reduce costs to a minimum. Nor had they any more confidence in the helicopter for topdressing. A certain speed is essential for spreading the superphosphate, and there was no object in using a machine which could hover but was less effective for the job and vastly more expensive to buy. Their own aircraft were very handy, and they could without difficulty spread the fertiliser in rows one chain apart.

These boys were enjoying their job. They had put a lot of courage, thought, and money into their organisation. It is not everybody's business to fly planes from one rough landing-ground to another, to take the air by bouncing down a steep hillside with a load of five hundredweight of 'super', and to do one's own cooking in one's own caravan after a day's work. Nevertheless, they are making a do of it, and their enterprise may be of great value not only to their own country but to the woollen manufacturers and housewives of Britain too.

The Heron

*Large in the glade as a
Kite in a greenhouse,
Up from the pond he comes
Flying towards me,
Lazily over me,
All unbelievable,
Legs out behind like a
Bird in a fable,
Filling the sky with the
Size and surprise of him,
Riding the air like a
Boat on the water,
Endlessly—endlessly—
Long as the summer day,
Lazily—lazily—
Hugely and lazily,
Largely and lazily
Flapping away—*

EGAN MACKINLAY.



The Day of the Gingerbread

A. M. ROBINSON

THE ship swung westerly and settled on a course heading for the south Brazilian coast, which lay flat on the horizon, fading out in the centre, where the estuary divided it. Out of that empty space Fraser could pick out the belching chimney of the abattoir a mile up river. What was it the manager had said last time? Something about the cattle coming in at one end on the hoof and coming out the other in a tin—nothing lost but the moo! His brown eyes lighted briefly at the thought of the weak joke.

Chalmers, the Second Officer, finished plotting the course of the run-in and came out of the charthouse, sniffing the air suspiciously. 'Can you smell it?'

'No, not yet. The wind is a few points off.'

'That's lucky.' He studied the distant shore sourly. 'The land of rumba and dead referees. Probably have some dead Third Officers around soon!'

'Don't you believe it!' Fraser laughed uneasily, propping his stocky body over the bridge-rail.

Chalmers came and stood alongside him inquiringly. 'You had some sort of a dust-up with one of the stevedores—shoved him in the drink, didn't you?'

'Well, not quite. The chap rather fancied

himself, but he ended up by going down the gangway at speed.'

'What happened?'

'Well, he played up one way and another, and then he started a new stunt—kept stumbling into me whenever he got a chance.'

'What a rude man!'

'The day we finished loading, the stevedores were leaving the ship. I was watching a derrick being lowered and John Henry crossed the well-deck behind me with some others. Suddenly he barged me in the back and sent me bang up against a ventilator.'

'Did he, by Jove!'

'I saw red for a moment, grabbed him by the neck and booted him down the gangway. Luckily he piled up on some others halfway down, or he might have broken his neck. The bosun and some of the deck-hands had a bit of a job stopping them coming back.'

Chalmers took off his uniform cap and scratched his head. 'I don't know if it was lucky or not that he didn't break his neck. As it is, you will probably have him meeting the ship to see if you are still aboard. He'll be wanting to wrinkle out your kidneys.'

'That was twelve months ago,' grinned Fraser. 'He'll have forgotten my face by now.'

'I bet you haven't forgotten his! Anyway,

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if he turns up I'll lend you my false moustache. You'll need it—these gentlemen are touchy.'

He disappeared below and left Fraser to contemplate the disheartening scene through the cold drizzle which was now falling. With this kind of weather, they might almost be running into Liverpool!

Liverpool! Fraser's mind turned wistfully to glistening wet streets, bright dance-halls, crowded cinemas, and then swung back to the prospects ahead—three days anchored in mid-river, marooned in a waste of flat, featureless country, with a string of high-smelling lighters hung around their necks. He could almost smell the pungent odour of the wet hides as they were slung aboard in an endless stream, hour after hour.

IN the early afternoon the anchor rumbled down into the river mud, the doctor and port authorities paid their brief visits, and shortly afterwards several empty lighters were nudged alongside. Fraser was sitting in his cabin, when a babble of sound outside his porthole warned him of their arrival with a load of stevedores. He went up on deck and watched what was going on keenly. To a man used to the comparative quiet of sea life, the angry clamour rising up should have meant that there was a fight in progress, and possibly bloodshed! The fellows certainly looked capable of it! With their swarthy complexions and fierce mustachios, they only needed the knives in their belts for the finishing piratical touch! Three hundred years ago their Portuguese ancestors must have looked very much like this, he thought to himself. Time had stood still in this godforsaken spot.

The noise spread over the ship as the men streamed up the accommodation-ladder and pattered barefooted across the decks to the holds, still shouting heatedly. The thumping of the hatchboards being thrown off and the rattle of steam-winchies added to the hubbub, and it was then that Fraser realised uneasily that one or two of the men were drunk; most of them seemed to have been drinking.

'*Bom dia, meu senhor!*' 'Good-night, Mistair Churchill!' 'How do you do, Ingleeshman!' They flung the greetings at him mockingly as they passed. Evidently they had been waiting for the ship all the morning in the local wineshop!

As Fraser watched No. 1 hatch being opened up, the winch cable-hook swung

across violently and smashed into the side of the hatch, missing by inches a gentleman who turned out to be the foreman. He had a dark fleshy face, with several days' growth of beard on the chin and a fierce flowing moustache. His boots, mackintosh, and dilapidated trilby hat gave him the mark of authority over the others, few of whom went beyond the possession of trousers and shirt. Every word he spoke was accompanied by a vigorous gesture, and Fraser wondered idly what would be the effect of tying his hands. Would he go dumb or explode? Anyway, a man in charge of such a bunch of cut-throats must have some tough ability somewhere, and after listening to the torrent of Portuguese that he directed at the two winchmen Fraser partly understood what it was. His hard eyes showed that his invective was both merciless and deadly. Like a driver of an ox-team flicking his animals with his whip, so he picked out the offenders unerringly with his words, and had now stung the two winchmen into accusing each other angrily.

'Liar!'

'To hell with you!'

'Scum!'

'Communist!'

The gang at the bottom shouted loudly for the hook to be sent down. 'Send the hook quickly! Stop embracing each other!'

Still locked in their argument, the winchmen unwillingly detached a fragment of their attention to the matter of the hook, which they sent whipping and lurching across the deck, where it dragged over the edge of the hatch and dropped below, swinging across the hold from side to side, and landing with a crash at the bottom, causing a stampede and a fresh volley of muffled language to rise hysterically from the bowels of the ship. '*Mulas!*' '*Vaccas!*' '*Imbecis!*'

It was as though the clean quietness of the sea was suddenly swept out of the vessel by the vicious bedlam of the human dregs running over her. It would be good to leave all this behind and slip out to sea again. In the meantime there was a job of work to do.

PHILOSOPHICALLY Fraser swung his leg over the side of the hold and climbed down the iron ladder that dropped vertically into the murky depths below. He moved suspended like a spider on a thread as he lowered himself down to the 'tween-deck and

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on down to the sepulchral gloom at the bottom, with its stale warm atmosphere, reeking with the stench of sacking and a score of other indefinable smells.

At the bottom he stepped off the ladder and went across to examine the markings on the boxes that were being sent up. Then he turned to watch the men working. Lazily they snatched at the small cases with their cargo-hooks and rolled them on to the loading-tray lying on the deck, and it was then that he saw one of them looking at him intently with hostile, bloodshot eyes. It was John Henry, and he was very drunk—but not too drunk to recognise him! The Third looked coldly at the swarthy face, with the stray black curly wisps of weak beard clinging untidily to it, at the glaring eyes, the naked olive-skinned torso above frayed linen trousers, with the inevitable knife thrust through the belt, at the large naked splayed feet.

The Brazilian started talking rapidly with rising, hissing sounds, and the atmosphere suddenly became charged. The men looked at Fraser malevolently over their shoulders as they worked. John Henry's voice gradually became impassioned. He was urging some action. With a prickling feeling at the base of his scalp, Fraser wondered if they were planning to rush him.

He looked around. If they did come at him, he was trapped. Even if he could hold them off for a few minutes, he wouldn't be able to get help. Nobody would hear his shouts. He could never reach the ladder from where he was, and if he did, there were the men at the top. It might be as well, all the same, to try to get nearer the ladder. If he could get as far as the 'tween-deck, he could stop them coming up after him, and also make himself heard on deck.

Nonchalantly he strolled over towards it, a tingling sensation flitting up and down his spine as he wandered across. A sudden crash behind him brought him round with a start, in time to see the contents of a tray cascading down, showering boxes and containers which burst open on the deck, strewing it with tins, bottles, and Epsom salts, and missing him by feet. John Henry eyed him balefully. The first score was to the Brazilian even if it was not a complete winner.

FRASER started to climb the ladder as a verbal battle broke out. From the hatch-

opening the foreman was dropping down a string of deadly, vitriolic accusations; while from the hold the gang were firing up volleys of impassioned counter-accusations. John Henry maintained a satisfied silence. A faint cloud of dust floated through the pandemonium, abruptly silenced as the dangling tray suddenly swept across the hold, making the men leap for their lives. Fraser climbed out of the hold and shouted angrily to the foreman. 'Stop the winches!'

'Stop the winches? Yessair. Why we stop the winches?'

'That was a deliberate smash!'

The foreman looked at him blankly.

'That smash was done on purpose. Your men smash the cargo!'

'Oh, nossair. Very good men. The good men don't smash the cargo, nossair.'

The Third pointed below and indicated John Henry. He spoke heatedly. 'That man smash the cargo. Take him off the job!'

The Brazilian's eyes glistened, and then narrowed.

'You tell *me*, hey?' raved away the foreman. 'Take my good men off the job!' He moved nearer to Fraser and spoke emphatically, his arms waving like a conductor's. 'You don't tell me! *Não, senhor*, by golly you don't tell me!' He beat himself passionately on the breast. 'You think you beeg man with nice uniform! I don't work for you, beeg officer. Phut!' He snapped his fingers and spat over the side.

Fraser looked at him darkly. This blown-up tin god with his boots and trilby was too full of his own self-importance to take anything from him unless it was rammed down his throat—so he must ram it! It was a pity. He didn't feel at all warlike. What he wanted was to get the job finished, so that he could have a beer and a cigarette in peace.

He squeezed his voice into a tone of deadly menace. 'Listen, Mr Foreman. I am responsible for this cargo. I don't like it being smashed. I'm going below again. If any more cargo is smashed, I am coming up and I shall throw you over the side! Got it? You'll be in the river!' That was that. The next move was up to them.

The foreman gazed at him with rolling eyes as he strove to understand the meaning of the threat. As it sank home, he exploded into a torrent of indignation, which followed Fraser right down the ladder to the bottom of the hold.

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From there Fraser could see the foreman shouting and declaiming hysterically. His gaze turned to the men in the hold and met their sullen, scowling faces. There was plenty more trouble here, even for anybody who wasn't looking for it.

FRASER leant himself against a large crate, brought out his notebook and started to study the cargo stowage. But the atmosphere was charged and pregnant and he felt instinctively that something would have to happen to explode all this tension. It was a swine having to cope with a bunch like this on your own. However . . .

When he looked up again, John Henry was standing a few feet away, swaying, and leering at him with dull, hostile eyes. Very deliberately he lit a cigarette, blew the smoke into Fraser's face and spat on the deck. It was a clear challenge.

So this was it. The Third regarded the Brazilian closely. He was so drunk he could hardly stand up, but his brain was fairly clear: he knew what he was doing. This had to be dealt with somehow or, after what had already started, things would get right out of control. Wryly he looked at the cargo-hook in the man's hand and the knife thrust through his belt. This was something he hated doing—but he'd just have to chance it.

A sudden silence enveloped them as the men stopped work. Fraser knew that all eyes were on him, waiting for his discomfiture. Straightening up slowly, he took the cigarette out of John Henry's mouth, pinched it out, and handed it back with a smile. 'No smoking, John. No *fumar*!' He couldn't remember the proper phrase, but it was near enough.

There was a sharp intake of breath as the stevedores looked at him in astonishment. There was a murmur of resentment. In a burst of fury, John Henry wrenched a box of matches out of his pocket and relit the cigarette with trembling hands, puffing clouds of smoke in exaggerated defiance.

Stolidly Fraser leaned forward again and removed it from his mouth a second time. This time he flicked it on to the deck and trod it out; but this time he did not smile. He gazed at the Brazilian as a man does when he knows that the next move is going to be a lethal one.

The atmosphere was electrical. There was

no sound except for the faint drumming of a distant winch. The light from above spotlighted the centre of the hold, leaving a dark mass of piled cargo surrounding it, like an audience grouped round an illuminated boxing-ring; and, like a boxer held in the solid glare from the ring lights, Fraser felt himself isolated with his antagonist, for better or worse.

The chances were that the man would charge at him in a blind rage. The stevedore first looked down at the crushed cigarette-stub, almost in disbelief that anyone could do such a thing to him. As realisation slowly reached his brain through the fumes of the alcohol, he swung his hook up and stood brandishing it wildly, his bloodshot eyes dilated with rage. He staggered closer, lifting his hand back again and again, as though going to strike. When he was within striking-distance, he stood mouthing incoherently, his alcohol-laden breath beating sickeningly into Fraser's face.

The Third made no movement, but he was tensed and poised. His toes were gripping the deck through the soles of his shoes and his whole body was braced in the manner of a sprinter waiting for a starting-pistol. He watched the other swaying about slowly, as though his feet were stuck down. If the fellow did strike, he should be able to dodge the blow with any luck. But what then? If only he had a piece of wood he could put his assailant's arm out of action; but he hadn't a piece of wood. There was plenty of dunnage lying around, but it would be suicide to take his eyes off the man's face. He would have to use his fist. He would go for the stomach—no use breaking up his hand on that bony face. If he let him have it when his arm was up above his head, his stomach would be an easy target. If he didn't manage that, he would have to dodge and try something else.

The man stared menacingly at Fraser, his limbs shaking with a drunken frenzy. The Third stood stock-still, his eyes boring through the white passion in the other's eyes, through to his mind; and suddenly he had the curious feeling of looking inside it, fascinated and repelled by the dark ignorance he saw there and the tormenting weakness which was driving the fuddled wretch to try and prove himself before the others. There quite plainly was fear—fear of not using the hook and so proving himself a weakling; fear of using the hook for what might happen to him

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afterwards; and even fear of what the little officer might do to him.

The seconds passed slowly. By the sheer menace of his gaze Fraser had held up the first rush. Now he saw indecision coming into the Brazilian's face. It was almost as though he had got a grip on his enemy from which he was trying to free himself. He could read the man's thoughts. He had made a snare for himself! The Englishman did not run, as a man should when he has nothing in his hands and he is attacked with steel. Now, whatever he did would bring about his own mortification, or even ruin. But he could not face the taunts of the others if he lowered his hook and turned away. In a sudden rage at his own impotence, the Brazilian lurched forward to swing the hook down on Fraser's head, and even as the Third clenched his hand to drive into that slim, tight belly, rippling with muscles, there was a rending crash high above them, and Fraser glanced up to see the winch-hook foul the steel hatch-beam, lift it partially out of its sockets and release a shower of hatch-planks from the portion of the hatch left covered.

As the Brazilian struck, Fraser leaned over and grabbed him by the back of the neck, pulling him violently backwards under the 'tween-deck, where they sprawled on the deck together, watching the planks come thundering down, bouncing and slithering around the bottom of the hold in a cloud of dust.

The blow from the cargo-hook had ripped down his left sleeve and gashed his wrist. Automatically he jumped to his feet with blood dripping from his fingers, and waited for a second attack. The man struggled to his feet slowly and looked wonderingly at the pile of timber that covered the spot where he had

just been standing. He stood shaking his head in perplexity. Suddenly he tossed aside his hook and held out his hand. A moment later he was fussing over Fraser's torn wrist, amidst a fresh bedlam which was suddenly unleashed.

THE Second was rather proud of his sewing ability, but Fraser was quite glad when the three stitches were in and his wrist was bandaged up, throbbing madly. He went back to his own cabin, sat down with a sigh of relief and lit a cigarette. A neat double-kick on the bulkhead announced the arrival of Soskins, in a faultless white jacket, with the tea-tray. 'Chef's compliments, sir. He's done some gingerbread. It's a bit special like.'

'Oh, why's that?'

'Guy Fawkes Day, Mr Fraser.'

'Really? I should never have remembered.'

'No, nor me. That's the trouble with life at sea, sir—nothing ever 'appens. It just goes on the same, day after day.'

'You're very nearly right, Soskins.'

'Especially 'ere. Thank Gawd when we get back to Europe.' He glanced through the porthole at the bleak scene with disapproval.

Fraser's face brightened. He lifted his cup and held it high. 'Soskins, I give you a toast: "Antwerp!"'

'You're right, sir! And I'll give you another: "Anywhere except this perishing place"—it fair gives me the shivers!'

The Third turned towards him solemnly. 'Soskins, I salute the toast and I join you most cordially.' He lowered his cup and drank. 'And another thing, Soskins.'

'Sir?'

'There's no damned sugar in this tea!'

The Loon

*A' thing's gaen wrang the day
About the hail fairmtoon;
Ee'd think the verra flagsteens kent
'At flu hid smit the loon.*

*The kye wis ill tae milk,
The deuks gid far awa,
The tractor hid a tiravee
An' widna meev ava.*

*Some han's 'll bide in bed
An' ee wid har'ly ken,
Bit Tam's the stangie o' the trump
An' worth a dizzen men!*

K. M. MACLEOD.

Partan-Fishing in the East Neuk

BELLEFIELD

WHEN I was a boy, which was mostly during the 'nineties, my summer holidays were usually spent in a little village, about a mile from the sea, in that part of Fife known as the East Neuk.

As a family we always stayed for the month of July, but my father took only the last fortnight, with the addition of two week-ends in the first fortnight, which meant that during that period there were two Saturdays only on which I had to accompany him on his favourite diversion of partan or crab fishing, but during the last fortnight this was a job I had to do twice, and sometimes three times, a week.

If it was a dull day, and it looked like rain, there would be only the two of us on that particular jaunt, but on other occasions, when the weather was fine, there would be a family excursion, along with some relatives, to the shore, arriving about twelve o'clock, and staying till between five and six. So far as my father and I were concerned, however, this was, on partan-fishing days, only the first part of our journey, as the rocks were the best part of a mile along the shore, and well out into the sea.

Incidentally, the partan rocks, which were in a small bay forming part of a larger one, our view to east and west being thus practically obscured, constituted one of the most desolate areas imaginable. Of all the innumerable isolated spots that I have spent some time in, I never experienced such a feeling of loneliness as in that place, even although my father was with me.

THE best time for partan-fishing is during the period when the tide is ebbing, and usually when we arrived it was about halfway out. This, of course, left a fair expanse of the bay to work on, and my father would go from rock to rock in an expeditious manner, trying all

the likely openings, and never giving one up until he was satisfied that there was no use in remaining any longer.

There is, I may say, no complicated procedure in this pastime. All the tackle required is an iron cleek, while the *modus operandi* consists of inserting that implement into the various crevices until one comes across a crab big enough to be worth catching. That, however, is only the first part of the job, as to get the partan to grip the cleek, and then to manœuvre the crustacean out into the open, was sometimes a very tedious job.

Many a hard tussle my father had with some of the more stubborn members of the crab family, but once he got hold of one he usually brought it out in due course, no matter how long it took. This, naturally, became a bit boring for me, as partan-fishing is not a particularly exciting sport to watch, and once when, as tactfully as possible, I pointed this out to him he blandly informed me that I had the best of it—he had all the work to do!

Ordinarily we stayed about three hours at the partan rocks, but we were by no means hunting crabs all the time. My father was a voracious book-reader, and on very warm, sunny days he would spend an occasional fifteen minutes in perusing some volume, while the cleek lay, suitably placed, under a likely-looking rock. Sometimes when we returned there was a partan hitched on, or near to, that fishing utensil, but generally we drew a blank, and this labour-saving device could hardly be called a terrific success.

Generally my father called it a day when he had got six partans, or at five o'clock, whichever was first, but I do not think I ever took home less than three crabs.

AS far as the technique of partan-fishing is concerned, I can add nothing to what I

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have already said, and, if it was left to myself, I would just poke around until I was lucky enough to come across a specimen. My father, however, seemed to have a flair for locating the animals by the formation of the rocks, but, even so, a good deal of time was taken up in looking for the partans among all the possible openings within that rock-strewn bay.

Sometimes my father would disappear for about ten minutes while he prowled around some nooks and crannies right at the edge of the water, near enough to get soaked by the spray as the waves crashed against the rocks. This was rather a risky place to scramble about in while crab-hunting, as the rocks were usually wet and there were clumps of seaweed lying about in such close proximity to the brink as to make walking difficult and, at times, almost dangerous. It was only a matter of a few feet from some of the rocks to a drop of about ten feet into the open sea—and a cold, bleak, surging sea it was at this point—or into a seething cauldron of foamy water, and if anyone was unlucky enough to fall into one or other of these places the chance of getting back to safety again, by one's own efforts, would certainly be extremely remote.

There was one day I got a very bad fright indeed. My father had been away for about twenty minutes—much longer than usual—when I noticed what looked like a man's body floating in the water about fifty yards out. I had been lying with my back against a rock at the time, but, needless to say, I immediately got up, and roamed all over the place looking for him, and calling on him. For five terrifying minutes, however, there was no response, and I was just on the point of making my way to the eastmost tip of the bay, where the object was drifting to, when I perceived, to my great relief, a pair of legs sticking out of a cavity at the foot of a rock. Down I went beside them, determined not to let my father out of my sight for the rest of that afternoon.

After about ten minutes he wriggled, slowly but surely, out of the aperture, and then I noticed that he had caught an outside in partans—it was, in fact, a lobster! After

resting for about five minutes he proceeded to tie his capture on to the cleek with a bit of twine, after which we returned to the place where the rest of the day's catch lay. This consisted of four good-sized partans, and, as it was now approaching five o'clock, my father decided that, with one lobster, in his opinion, being equal to two partans, we had reached our prescribed total, and that it was now time to go home.

AND here I must refer to the biggest snag of this partan-fishing hobby, so far as I was concerned.

As I have already stated, the partans were all tied together with twine, and it was my job at the end of the day's fishing to carry them on my back all the way home. I repeatedly protested against this arrangement, as it was, at best, a most uncomfortable job, and at times rather a painful one. I suggested that I would be quite pleased to carry a basket, and put the crabs into it, but my father insisted on my carrying them on my back. He said it was ridiculous to carry a basket about all day when there might be only two or three partans caught.

I had, of course, yielded to the inevitable, for, after all, my father was the boss, but when I saw him tying the lobster on to the four partans I immediately rebelled, and flatly refused to carry such an ugly-looking beast on my back.

By good luck my father appeared to realise that I was quite justified in my protest, so he tied the lobster once again on to the cleek, shouldered that implement like a gun, and with the sturdy but by no means prepossessing denizen of the rocks hanging down behind him we set off together on our homeward journey.

That night we all had a fair portion of lobster, and, taking the whole month, I suppose, between partans and wilks, we would have a meal of shellfish on twelve days at least, so that my father's hobby provided us with a very appetising addition to our diet on these occasions, and thus was not altogether a useless play.



Light of Asia

PETER GORDON

OVER the horizon where the sun comes from there is an island. On this island, in a little tumble-down house roofed with shiny green tiles, lived a Chinese man with a chicken. As well as the chicken, he owned a lot of ducks; and it was his habit every morning, when the first light of a new day spread across the sea, to open the door of the duck-house and beat upon its roof with a bamboo—very long and thin—which he always carried about with him.

When he did this, out streamed the ducks, as people stream out of a cinema on a wet night—no standing about and chatting outside. The ducks were in a great hurry, because Ah Lung—that was the Chinese man's name—always stood beside the duck-house door, long bamboo poised in hand, ready to give the last duck out a whack on its wagging tail. The ducks knew this, you see, and each one of them hurried and hustled and jostled so as not to be the last. In this way Ah Lung ensured that the ducks did not hang about and waste his time.

The ducks streamed out, as I said, and made a bee-line—or a duck-line, if you prefer it—down the road for the lovely oozy mud-flats where a shallow river ran into the sea. Ah Lung followed along behind, his long bamboo

over his shoulder and a round straw-hat with a large brim and a high peak on his head.

For most of the day Ah Lung sat on a rock at the edge of the mud, while his ducks paddled about in the ooze in search of the juicy slugs and snails and edible rubbish brought down by the river during the night or left in the mud as the tide went out. In this way the ducks got their breakfasts, lunches, and suppers with no expenditure on Ah Lung's part, except that of his time—and, as he had plenty of that to spare, the arrangement suited all concerned.

When evening was approaching and dark shadows began to spread across the sea, Ah Lung got off his rock, yawned a mighty yawn or two, stretched his stiff legs, and picked up the long bamboo.

If, at about this time of the day, you had been watching the ducks closely, you would have noticed that most of them—the clever ones, anyway, were giving only half their attention to rummaging in the ooze. This was because they were keeping one eye on Ah Lung—waiting for him to yawn and stretch and pick up his bamboo as a signal that it was time to go home.

The hurry the ducks were in as soon as this signal was given was very funny to watch.

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Splashing little splashes in the wet mud with their flat feet, tails wagging so fast that they seemed to vibrate on springs, they raced for the road, each trying desperately not to be the last home, for the performance of the morning was repeated every night—the last duck to scamper through the door into the duck-house got a whack on the tail from Ah Lung's long bamboo. In this way Ah Lung wasted no time, of which he had heaps to spare, in getting his ducks to bed.

THE first thing Ah Lung did when he got back to his tumble-down little house roofed with shiny green tiles was to untie the chicken which had spent the day tied by its leg with a long piece of string to the leg of Ah Lung's only table. From that moment, until Ah Lung went out again next morning with his ducks, the chicken would be free to scratch about outside and come in to be fed with any rice and scraps from the master's supper.

The chicken's name was Light of Asia, and Ah Lung, who had no wife and no children, nor father nor mother, nor brother nor sister, lavished all his affection on the chicken. In other words, he was very fond of Light of Asia and treated her very kindly.

Light of Asia, dull-brown in colour, not very young, not very beautiful, not very anything really, except always very hungry, despised the ducks and would have nothing to do with them. What she liked best—after food—was to sit at Ah Lung's feet late into the night while he smoked. The scent of opium would creep round the walls of the little house, as mist sometimes creeps along the seashore, and both Ah Lung and Light of Asia would grow sleeper and sleeper, until they got carried away into a dreamland where none could follow them. What he dreamed of, only Ah Lung knew; and what she dreamed of, only Light of Asia knew. But whatever their dreams were they must have been very beautiful, because on the face of each would appear a smile that nothing but sweet dreams could have put there. There was very little to smile about in the awake life of either Ah Lung or Light of Asia, and that is why, I suppose, they did all their smiling in their asleep life instead.

ONE day, when Ah Lung had put the ducks to bed as usual, he went into his little house to find that Light of Asia had dis-

appeared. There, tied to the table-leg, was a short piece of string, the other end of which had been tied to the chicken's leg; and it was not difficult for Ah Lung, who was far from stupid, to see that the string had not been broken, but had been cut with a knife. Much as he loved Light of Asia and knew her to possess an intelligence above that of other birds, he knew that she was not clever enough to use a knife. So, 'A robber has done this,' he said to himself. 'In my absence some wicked man has entered my house and stolen my beautiful Light of Asia.' He thought her beautiful, although she was not in the least, because we all think that anything we love very much is beautiful—and that in itself is a beautiful thing.

There was no time to be lost. Night had already spread across the sea and engulfed the land, and on the hillside across the river little twinkling points of light pricked the darkness and showed where Ah Lung's nearest neighbours were preparing their suppers after the day's work in their fields. Preparing their suppers! The ghastly thought shot through Ah Lung's brain like an arrow piercing a water-melon. What if Light of Asia were already plucked and waiting for the pot, or in the pot, perhaps, of the wicked robber who had carried her off? Indeed, there was no time to be lost. Rescue her he would—alive or dead! If dead, then woe betide the killer! If alive, well . . . he would wait and see.

Ah Lung was a man of peace. He had no warlike weapons in his little house; but he did have a small chopper that he used for chopping up the larger pieces of driftwood which he collected from time to time around the mouth of the river. He picked up the chopper and blew out the light—a piece of wick floating in a small bowl of oil. Then, leaving his straw-hat on the table and rolling his cotton trousers up above the knees—his feet were bare—he went down to the river and began to cross. The water was so shallow that even in the deepest part it reached only halfway up his calves; but he had to go cautiously, all the same, because it had grown so dark, and he did not want to stumble and perhaps drop his chopper into the water if he fell.

Near its mouth the river was very wide—at least a quarter of a mile across, for it was this river that separated Ah Lung's island from the mainland—and it took him quite a long time to reach the opposite shore. But he got there safely at last and climbed up the stony

beach. He knew—he had often been there in daylight—that a narrow path led up from the beach to the huts on the hillside where his nearest neighbours lived; but whether he could find the path in the dark was another matter.

He cast about, first one way and then the other, until his perseverance was rewarded: he felt the smoothness of the path under his feet. Then he started to climb.

ALL this had taken Ah Lung such a long time that he felt sure he would never see Light of Asia alive again. With this sad thought in mind he arrived at last outside the first hut. The door was shut and there were no windows, only openings closed with rough wooden shutters, but both these and the door fitted so badly that he could see through the cracks that there was a light inside.

Not a sound broke the stillness. Even the restless ocean, not so far away, was quiet. The great stars that hang from the sky above the China Sea looked down upon Ah Lung in his quest for Light of Asia and gave him courage. He gripped the chopper tighter and said a small prayer to his ancestors, asking them to preserve him from the perils of the night. Then he rapped upon the door with his knuckles, and waited.

There came no answering shout, no stealthy shufflings from within, none of the sounds he had expected to follow on his summons—nothing but silence. If the hut were empty, he asked himself, why leave a light burning inside? The poor of China are not the people to waste lamp-oil. Somebody must be there—somebody who was quietly waiting, so Ah Lung's thoughts ran, to pounce upon him if he opened the door, and probably hit him on the head before he could explain who he was or what he wanted. The poor of China who live out in the country or along the seashore or on the islands off the coast regard all visitors after dark with suspicion and with fear.

But Ah Lung could not stand there in the darkness outside the hut for ever. He had to do something, so, taking his courage in both hands, he kicked the door, and it flew open. With chopper raised in readiness, he awaited the expected rush—but nothing happened. Cautiously, the chopper in his right hand, he pushed the creaking door back with his left as far as it would go. Still nothing. The wick in the small bowl of oil—similar in every

respect to his own—made a round pool of light in the centre of the floor; but this seemed only to increase the darkness in the four corners.

Ah Lung sniffed. There was a strong smell, a smell of frying meat, a smell of—could it be—of fried chicken? Ah Lung began to tremble. Whether he trembled with fury or with fear or with anxiety he did not know himself. But he gave a shout, a loud shout, an angry shout, a shout of defiance, a shout to bolster up his courage, and strode across the hut to the darkest corner, where shapes among the shadows broke the level surface of the floor.

Then all was revealed to him in its ghastly truth. An empty bowl, a pair of chopsticks, a grain or two of rice, and bones—bones everywhere—*chicken bones*—all that remained of Light of Asia.

Beyond the bowl, beyond the bones, huddled into the corner, was a man. Here was the robber, the slayer, the destroyer of Light of Asia for the sake of a meal of fried chicken! Gorged and asleep—stupefied with food.

So! As he had killed, thus would he be killed! Ah Lung raised the chopper above his head and stooped forward to deliver the blow of vengeance. Then, something held his hand. The upraised chopper did not descend. Instead, Ah Lung peered closer, bent over the man, felt his head, felt his face, and then his heart—the man was already dead.

In fear, in terror of the unknown and unexpected, Ah Lung backed out of the hut of death, and ran headlong down the path. He splashed across the river. No fear of stumbling made him cautious now; fear was behind him and he was running away from it.

THE moment Ah Lung was inside his little house roofed with shiny green tiles he reached for his pipe. Only in dreams could he forget his fear and lose his sadness. Only in dreams could he forget.

But it was not to be so—for in his dream he saw, as if he had been watching a performance on a stage, what had happened. He saw the robber enter his little house and seize Light of Asia in one hand while he cut the string with the other. He saw him cross the river and steal along the bank downstream to a place where a runnel of water ran swiftly. There, he saw him kill, clean, and pluck the bird, so that the feathers would be carried by the running water out to sea where they would tell no tales.

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He saw the robber hurry up the hill to his hut, light the lamp, make up the fire, take his frying-pan, break up the chicken, put in the pieces, drop in the rice, and then fill the bowl and eat—eat—eat: eat so fast and greedily that the whole chicken was nearly finished when—with a gasp and a choke, a bone got stuck in his throat. He saw the robber gasping and choking, clawing at his throat, rolling on the floor, groaning and moaning, then creeping into the corner and lying there until his

breathing grew less and less and he died from suffocation.

Ah Lung saw all this in his dream, and thus he knew that his ancestors had avenged the death of Light of Asia so that he should have no blood-guilt on his mind nor fear in his heart when he went daily to the river to sit on the rock at the edge of the mud while his ducks paddled about in the ooze until dark shadows spreading across the sea told him that it was time to take them home to bed.

Deserts Are on the March

MARTIN THORNHILL

DESERTS are advancing on a 2000-mile front throughout three Continents at thirty miles a year, and a British expedition is taking stock of the chances of curbing this powerful threat to the world's future supplies of food and other produce. The first efforts are aimed at the Sahara, the largest present desert mass, almost the size of Europe, which is now threatening Nigeria, Britain's biggest colony.

The expedition is led by Richard St Barbe Baker, who thirty years ago founded a body of tree-lovers called 'The Men of the Trees'. Both he and his organisation are convinced—and there is abundant evidence to support the conviction—that the march of the desert can be halted only by replanting trees on its margins, thus correcting the denudation that has been continuing for generations. The purpose of the enterprise is therefore to start schemes on these lines, to note what has been done by any other interested bodies, and to record the positions and remains of forests which formerly flourished on present desert ground.

They plan also to establish research centres where representatives of other countries could study the problem in the light of modern

methods of land reclamation. As, states the expedition, representatives of over thirty countries are watching their operations with deep interest, it is hoped that evidence of success will initiate a vast tree-planting campaign, which will go on increasingly until the desert is finally defeated.

HOW works this insidious killer from whose grasp there has so far, except in a few individual cases, been no escape? It brought ruin to Carthage, once a mighty township of a million souls, but long since a city of the dead. It destroyed the all-powerful empire of Persia, and hid the civilisation of the Pharaohs under the sands, for Americans to rediscover.

In general, erosion is the wearing down of the earth's surface through the action of the atmosphere, rain, rivers, ice, and the oceans. Atmospheric erosion is either chemical or mechanical. Chemically through rainfall or mechanically by sudden changes of temperature particles of rock are caused to split off. Along with the sand already similarly formed, these particles are transplanted by wind, either polishing into desert forms the surfaces over which they travel or forming fresh deposits of

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sand, dust, and useless soils. Added to this natural despoliation are certain human contributions—the failure to apply fertiliser to existing agricultural land, remedial measures halted by the War, and shifting cultivation, estimated to be about 1000 square miles every year.

Counter-measures by concerted action would take the shape of reafforestation of cut-over, idle, and semi-arid lands. As forests form the stoutest bulwark against moving desert, trees would be planted on desert margins where no trees exist, and put back where they have been cut away. Water would be made available by the control of suitable watersheds and the formation of catchment areas.

The extent of the problem is seen in keener perspective by viewing the situation as a world whole. The earth's largest desert area being the Sahara, this constitutes the greatest source of danger. On its borders, almost within memory, barren desert has swallowed whole forests, vast stretches of grassland, and thriving towns and villages. And every year the fertility of further outlying farmland is threatened by the encroachment of sand from the desert main.

The view is now widely accepted that new desert in Africa is mostly man-made, that Nature's balance is being upset through ignorant overuse of vegetation and soils by increased populations, flocks, and herds at points where rainfall is irregular and unreliable. In the worst areas affected blown sand necessitates the resowing of crop seeds as many as twelve times in a season. The French side of the Damerghu district, once much more heavily populated, has been left almost tenantless by migration. Forced to give up farming, those who remain now find the savanna fit for nothing but the rearing of goats. Soon these stragglers will go, too, surrendering another newly-impooverished area to the desert, as their fathers had done before them.

THE Northern Region of Nigeria has a population of 14 millions. They form a rich agricultural region, with a valuable export trade in groundnuts, cotton, hides, and skins. These are a vital factor in the economic life of the British Protectorate, and they are in immediate peril from the advancing Sahara. Through progressive desiccation the natural vegetation is swiftly dying out and being re-

placed by drier types. Yet these now near-arid acres were at one time relatively well-watered.

Just as greater Carthage, fifteen miles in circumference, was first menaced then buried by sand blown in from the Sahara, so this devouring desert ocean to-day threatens a large part of Nigeria. Borne on equator-bound trade winds, desert sand is marching to the destruction of vast fertile territories in the Sudan and East Africa, the invasion hastened through tree mutilation by graziers and by timber-cutting on a progressively expanding scale. Wide belts of protective forest have been cleared, allowing desert forms to creep towards productive land.

In less than a century the same grim cause has brought about an alarming switch to desert status of large tracts in Oregon and California, and in Canada mile after mile add their cunning contribution to the mass of prairie permanently lost to the drifting sands that sweep across the flat lands, turning grass and grain land into pseudo-Sahara. Farmers and home-steaders fight the scourge in vain. Others, less steadfast, give sand the victory without a struggle, and move on. Three thousand million tons is a conservative estimate of the top-soil purloined annually from North American territory by wind, rain, sand, and deforestation.

ALL these are distant fields. The menace is made the more vivid by an object-lesson from next door. People still refer to Culbin as Scotland's Sahara. The happier fame of the Culbin sands, on the shores of the Moray Firth, is linked to a period in the 17th century when there hummed through this countryside the busy life of farms, village, crofts, and cottages. But always there was this unwelcome neighbour along the coast—the sand-dunes, their movement more or less held in check by tussocks of deep-rooted marram-grass. Often villagers would pluck out this grass to thatch their cottages. Then, one night in 1694, a fierce off-sea storm shifted the dunes, which advanced and engulfed village, cottages, farms, livestock, and hundreds of acres of fields. In a single night the fruitful farms of Culbin were transformed to desert.

In 1922 Culbin was taken in hand by the Forestry Commission. Firs have been planted to stem the ebb and flow of the sand into

inland fields, and areas as yet untreated have been thatched with brushwood. Eventually the whole 6000 acres of fitful desert will be firmly held by the regiment of Corsican pines which forms the slowly maturing Forest of Culbin. But even now the brooding foe still moves uneasily, and here and there a change of wind uncovers a ghostly chimney or rooftop, burying them again when the blast veers to another quarter.

The remedial measures carried out on a greater scale in a large eroded region in the American State of Tennessee show what can be done by united corrective action. Within the memory of living man the thousands of square miles of bare hills which first confronted the engineers entrusted with the campaign had been rich virgin forests. Then lumbermen came to strip the trees from the hills. When the timber was gone, the fellers had to turn to agriculture for a livelihood. This increased the pressure on the land and, as the years passed, the new settlers, hard pressed by poverty, were forced to clear fresh acreage from the wooded mountainsides that remained.

With its natural cover removed, this land rapidly lost its fertility; the top-soil was steadily buried by sand and dust. A few years more, and that acreage, too, was beyond cultivation, fit only to be abandoned in favour of a newly-cleared area close by. The cumulative erosion was appalling. Outcrops of bare rock stood out like the ruins of ancient sun-temples where three generations earlier rich soil had lain over a yard in depth. Land engineers now took over, and within eighteen

months wise reafforestation had begun to reclaim the gullied, eroded hillsides. In ten years newly-settled farmers were growing forage crops, thus enriching the land. After a few decades of proper management these new forests, in addition to binding the soil and forestalling erosion, will even be able circumspectively to compete again in the world's timber markets.

Mussolini provided the world with an object-lesson in anti-desert cultivation. In one year—1939—over 450 million lire were lavished on his grandiose North African colonisation venture. Grandiose, yet in one respect far-seeing and wise. Over those endless half-desiccated areas stretching from the Gulf of Bomba to Ras Agadir the shifting sands were firmly hedged up; thousands of trees placed to bind the rolling dunes; citrus, olive, and almond trees planted; wheat sown and vines established. Aqueducts carried water for irrigation from springs, wells, and man-made rock-cisterns. A start, at least, had been made to restore these arid acres to the rich fertile terraces, backed by well-wooded hills, which they had been when the Moors went to Spain.

Permanent deserts are unlikely to yield much of what they have already won, and spectacular campaigns to reclaim desert land long ago lost to cultivation would be useless. The urgent need is concerted world action to consolidate what we still hold; and, chiefly by large-scale replacement of vanishing forest, to arrest further encroachment. Living forests are the strongest counter-influence to expanding desert.

The Moist Wind Murmuring By

*A dull sky shot with gold about the edges,
And the moist wind of summer murmuring by,
The baying hound, the frogs among the sedges—
Of lonely things abroad, the loneliest I.*

*On such an eve, oppressive, heavy-laden
With all the mystic warmth of summer rain,
Your soft hands on my face, oh dearest maiden,
Our love we sighed, nor dreamt of future pain.*

*Our hearts o'erleapt the faltering tongue's endeavour
On that dear night, the moist wind murmuring by.
Oh laughter stilled, oh footfall hushed for ever—
Of lonely things abroad, the loneliest I.*

J. B. M. CLARK.



Out of the Past

ALEXANDER RUSSELL

FASTEN your safety-belts, please. We will be landing in a few minutes.' The co-pilot looked us over, turned and re-entered the cockpit.

It would be good to stretch one's legs. For hours I had been looking out on that desolate Mekran coast. It was another world—weird, repellent; nothing green, nothing living. Here erosion was an evil genie, who, for a brief spell each year, woke from his slumber and, with crazy abandon, set about hewing and cutting countless canyons and castles from the edge of the desert. The red and yellow turrets and battlements held the eye fascinated and it was an effort to look away and down into the blue-green depths below. I had searched almost desperately for a sign of life, but there was none.

We bumped a bit when we landed. Perhaps the pilot was tired, or maybe the heat had caused air-pockets over the shimmering asphalt. I climbed out and looked about me. This was Gwadar, once a flourishing little port; now no more than a dreary fishing-village. It was a depressing prospect. Gwadar's former prosperity had been derived from the slave-trade. What a sinister history the place must have had, trading in misery!

There were palm-trees in the direction of the

village, but here, by the airstrip, the huts stood bare in the sweltering heat. I pitied the ground staff. What a life! A glimpse of civilisation twice a week, and the rest of the time nothing, absolutely nothing. The pilot told me one of them had packed in only the week before. They had to bury him quickly in that heat. His relief was on our plane.

Standing there, I observed, not far off, a group of ruined buildings: nothing to go out of one's way to look at—just a few crumbling walls standing there lonely and unnoticed. Yet, strangely, I felt myself drawn to them.

While I gazed at the derelict scene, wondering why I had come, a party of Bakhtiari tribesmen strolled over from their black tents near the village. It was then, quite suddenly, that I remembered. My father had been here long ago, before I was born!

The story he told me when I was a boy now came back to me. What had then been just a tale was now, for me, a vivid experience.

THE Persian Gulf? Yes (he said) I was there once. I was a young man then, serving in the old Eastern Telegraph Company. We were in a godforsaken place called Gwadar.

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I am not likely to forget it, I can tell you.

The telegraph-station was a little way out of the town, and every morning the locals used to bring out whatever supplies of fresh food were available—eggs and milk, dates and melons.

One day they did not come. No one came. The next day it was the same. Gwadar was out of bounds for us except when one of H.M. sloops called. I think it was something to do with the slave-trade, which was still being carried on in secret. So I sent one of our local coolies to find out what had happened. He did not return! Just vamoosed!

I did not like it at all. There was something very strange going on. Fleming, my assistant, and I were the only Britishers in the station and the rest of the staff consisted of a mere handful of Indian linesmen and telegraphists. I reported to Karachi and was told that the senior naval officer would send the sloop *Trojan* to investigate.

Meanwhile we remained isolated, wondering and somewhat apprehensive. Work went on as usual, and we had plenty of food in store. But the silence was becoming oppressive.

I was inspecting the booster next day, when one of the men came in, looking a bit scared. 'Sir, Bakhtiari chief with many followers is coming.'

'What can they be wanting, I wonder?' I said, but now my apprehension was clear enough.

'God knows! They are walking straight into the enclosure!'

I turned to the window and looked anxiously out to sea. Not even a wisp of smoke on that empty horizon. 'Tell Fleming Sahib to carry on normal routine. I will go and meet them.'

I WENT out, contriving to look unconcerned, but feeling far from it. There were the makings of a nasty situation here. The Bakhtiaris were a powerful nomad tribe, who recognised no law but their own. When the spirit moved them they were not beyond a little quiet looting. At that season they should have been in the hills. What were they doing here?

There were about twenty of them, with rifles slung over their shoulders and long, ugly-looking knives stuck in their cummerbunds. I walked towards their leader, a big, heavily-bearded fellow, wearing the usual round felt hat and long-skirted coat. There was a silver-mounted dagger at his waist,

which I found it hard to keep my eyes off. I remember the hilt was fashioned like the head of a dog.

'Peace be with you,' said I, gravely.

He stopped and stared at me. 'And with you,' he said gruffly.

I was thinking hard. I did not like the look of these customers. I did not like the way their eyes were roving round. If only I could hold their interest, giving them no excuse to start trouble. I feared that, once they started picking things up, there would be a free-for-all. They would break into the quarters and there might easily be murder. I spoke to their leader in Persian. 'Would the Khan like to see over the station?'

The Khan glanced at his men and I thought I detected a glint in his eye. 'Yes,' he said, and started moving forward, the others following closely.

I TURNED and led the way, trying not to think of that murderous dagger so close behind me. Was his hand on the hilt now? A prickly feeling went down my spine!

I was tempted to say that *Trojan* would be coming in any time now, but on reflection decided not to. It might need just that to precipitate looting. Instead, I talked of ordinary things. 'Your flocks will be up in the hills, Khan Sahib?'

'Yes.' He was not paying much attention.

'How has the grazing been this season?'

'Bad.' His gaze was restless.

'But there will be grass round the springs?'

'Many springs have dried up.' He turned to the accumulator house. 'What is this?'

'I will show you.' As we entered, I raised my voice slightly. 'It is inadvisable to touch anything in here,' I said. There were some tools and instruments lying around and I prayed fervently that none of these wild men would take a fancy to anything.

The Khan muttered something to the men near him, but I could not hear what. Out of the tail of my eye I saw a hand stretch out and take a spanner. It had started. I must act quickly. I called up Moghal Baz, who was tending the generator in the adjoining room, and gave him certain instructions of a technical nature. Moghal Baz was a Pathan and danger was the spice of life to him.

'There is nothing here,' said the Khan, 'only a lot of glass boxes with water in them.'

I started trying to explain electricity and how

it worked, but, of course, he did not understand. Then I said: 'If you like, O Khan, I will demonstrate to you, and you will see how wonderful it is.'

He grunted his assent, with a hint of impatience.

We had reached the far end of the room, the Khan and I leading and the rest following in single file. We had passed the last accumulator and the leading man had drawn level with a small water-tank, when I stopped and turned. That tank looked innocent enough, but Moghal Baz had passed that way. No one noticed the two little wires that led into it from the end terminals.

'Now, if the Khan will instruct his men to hold each other's left hand, he will see how they can communicate without speaking.'

As they clasped each other's hands, I noticed the leading man looking into the tank. Things moved quickly then. I turned my back for a moment. A hand plunged into the tank. There was the click of a switch at the far end of the room and instantaneously a powerful shock passed through the human

circuit. With a howl of consternation those Bakhtiariis stampeded, leaving their Khan gaping, wide-eyed, apparently rooted to the spot!

Then I laughed. Moghal Baz laughed. I rolled up my sleeve and picked out the two silver coins lying so invitingly there in the tank. The Khan gazed at me bewildered. Then he looked at his retreating followers and he, too, laughed. He was still laughing an hour later when he sat down to tea with us.

I STOOD as in a trance. The vision faded and the telegraph-station—well, there it was, in ruins.

I looked up. A young Bakhtiari chief was regarding me intently. I stared at him. He would be about my own age, maybe a little older. Then my eye fell upon the silver-mounted dagger in his cummerbund. The hilt was in the shape of a dog's head!

'Peace be with you,' I said gravely.

'And with you,' said he, and smiled.

Song of the Sea

*When summer's breeze the blossom bends,
Then must I seek to make amends,
In hope that all the ill I wrought
In winter time be set at naught.*

*I cast aside rough winter's dress
For a bright robe of happiness.
I curb my strength, restrain my might,
So morning's joy finds peace at night.*

*I fill the sandy castle's moat,
And set the tiny boats afloat.
My smallest wave, so gently, goes
To curl around a baby's toes.*

*At sunset, when the small boats ride
At anchor on my evening tide,
Old men in taverns by the quay
Talk long of how things used to be.*

*So oft I've heard their grandsires say
The selfsame thing, the selfsame way.
Life's cavalcade must pass along,
And I must sing my endless song.*

VIVIAN HENDERSON.

Twice-Told Tales

LV.—*Frau Wundt's Daughter and The Kief*

[From *Chambers's Journal* of July 1855]

FRAU WUNDT'S DAUGHTER

MY lodgings were in the house of a widow-lady and her daughter. On looking back, I conceive that I had a tendency to fall in love with the daughter, who was a very lively good-tempered girl; but as her mother, after the custom of the country, always kept an eye upon us both, the tendency in question never arrived at any development worth talking of. The Frau Wundt was a stout lady, but she was nearly ubiquitous. She always thought it necessary to be present whenever I addressed any observation to her daughter, and she was so. I never met that young lady, by accident, in the passage, but before I had said three words of polite, but incorrect, German Mrs Wundt was sure to appear from some doorway, and, looking daggers at me, would take up the conversation. Once I persuaded Peppi to let me hear her sing. She had the gift of song in perfection—as near a way as any to an honest man's heart. One would think there could be no great harm in turning over leaves of music for a lady who is playing to oblige one, but Mrs Wundt was of another opinion. Having appeared suddenly, as usual, at the door, she begged me not to take that trouble. I did my best to overcome the extreme reserve of the good mother, and ventured to hint that, in my own country, young ladies were not under such strict surveillance, but, on the contrary, were usually protected only by their own excellent sense and maidenly modesty. Mrs Wundt replied, with considerable dignity, that in England young ladies might be guarded by their maidenly reserve, but in Germany they were guarded by their mothers, which was much better. Here I rather think I heard a sigh from the neighbourhood of the piano, but I won't be certain upon that point.

THE KIEF

THE kief! What is the kief? It is unknown in England, where men labour perpetually, and think and act incessantly. It consists in doing nothing—thinking of nothing. When you see a man or a woman reclining languidly on a sofa near the window, and looking far into the blue distance of the sea or open country; when in your walk you observe an individual, half-concealed under a verdant tree, near a river or fountain, or on the sea-shore; or when you discover him, indolently resting on a carpet, amidst the thick foliage of his garden, or the dark cypresses of a cemetery, and he remains motionless, so that life is only discovered by the exhalation, at regular intervals, of the smoke of his tchibuck, the mouthpiece of which rests lightly between his lips—you would say he is making his kief. Opium is often in his tobacco, a glass of raki is sometimes before him; but in this case, the kief is profaned. Coffee alone, served in a small cup, capable of holding two or three sips of the precious draught, makes part of the solemnity—then smoke, nothing but smoke. Renounce for the time it lasts—one hour at least—motion and life; deprive the mind of all thought, and the body of all action; merge yourself into nothingness; neither see nor speak, but look vacantly on nature, and the smoke rising from the pipe—these are the qualities indispensable for those who dedicate themselves to the worship of the kief. This lethargic concentration of the body, this wandering or negation of the soul four or five times a day, is the greatest enjoyment of Mussulman life. It is to the Turk an abstraction from life to an ecstasy which few pleasures can equal, and no joys surpass, unless it be those of Paradise, promised by the Prophet to the true believer.

Science at Your Service

A LADDER PLATFORM

A SIMPLE platform that can be securely attached to any rung of a ladder except the topmost should appeal to those who have to carry out work standing on ladders. The platform flanges over the supporting rung, and the further end of the platform is chain-attached to the rung above. Thus, in working from a particular point on a ladder, a secure and flat surface is made available and the need to keep moving the feet to relieve the pressure of a narrow rung upon the instep is disposed of. This device should make ladder operations both more comfortable and safer.

A SILAGE CUTTER

The making of silage is more and more an essential operation in modern dairy or stock farming. Grass, or for that matter most other green fodder crops, can be preserved for winter use with considerably less nutritional loss than that which occurs in making hay. Also, the silage-making season is much longer than the hay-making season; it is therefore less vulnerable to interference by adversities of weather, and can be more readily fitted into the programme of a farm whose labour force is small. However, one of the troubles with silage is that it is very tightly compressed and tough to cut when eventually it emerges from the pit or silo. An engineering company has given some thought to this problem and designed an axe for cutting silage. The blade is thin and its sides are parallel, i.e. not wedge-tapering, so that minimum resistance is given to the entry of the blade into the silage. The shaft-run along the top or back of the blade is weighted to give extra force to the down-stroke. All parts above the blade, however, are rounded so that no edge or projection can catch in the silage already cut during the axe movements. The handle is angled so as to reduce the bending needed during silage cutting. A cut about 8 inches deep and 6 inches long can be obtained. The blade is made of cutlery-quality steel, and new blades can be supplied as replacements. The price is attractively moderate.

PLASTICS FLOOR-COVERING

A well-known manufacturer of modern plastics floor-tiles has now entered the field of non-permanent floor-coverings with a plastics-surfaced felt. This is likely to compete with linoleums, rubber, carpeting, etc., for floors in shops and offices or in vehicles. The base is of soft felt. The plastics surface is proof against water and grease and has high resistance to damage by oil or normal domestic chemicals. The surface is embossed with patterned designs, thus combining decorative effect with the benefit of a non-slip surface. The new floor-covering can be laid without any specific fixing, or it can be tacked down or stuck down with any linoleum adhesive. It is flexible in nature and in consequence may be lifted again without risk of cracking. Twelve different colours and a variety of embossed patterns are available. It is sold in 24 or 48 inches wide lengths; the price is comparable to that of high-quality linoleum. Bordered flooring for stairs or passages is also available.

SIMPLER CLEANING

The principle of the modern squeezable polythene bottle has been ingeniously adapted to provide a general-purpose cleaning device. It is a squeezable container of bottle shape, fitted with a detachable rubber head. The rubber head incorporates a scraper, and has a diaphragm with a valve-opening in its centre. To use the device, the rubber head is temporarily removed and a spoonful of detergent or soap-powder is placed in the container up to the guide-line indicated. Water is then added to fill the bottle and the rubber head replaced. Squeezing the bottle releases the detergent or soap solution, but the valve closes as soon as hand-pressure is relaxed. One filling should be sufficient for a number of washing-ups, say, for up to ten or twelve. The scraper is designed particularly for cleaning paint or wood surfaces, carpets, upholstery, cuffs and collars, cooking utensils, etc. It should not, however, be used upon varnished or polished surfaces. The price of the appliance is moderate.

CHAMBERS'S JOURNAL

A NEW FIREPLACE

A well-known manufacturer of brick fireplaces recently exhibited a new design in which novelty of attraction is skilfully combined with utility. On either side of the fireplace opening is a hinged wrought-iron gate; in their open positions, these gates are a purely decorative feature, set flat against the brick surround. When closed across the fireplace opening, however, they serve as a fire guard. The same model of fireplace has a wooden mantel in light oak, mahogany, or two shades of walnut. These narrow mantels are, of course, of contemporary design, and not reminiscent of older and heavier days of fireplace mantelpieces. The size of the model exhibited was $5\frac{1}{2}$ feet long, just over 3 feet high, and $1\frac{1}{2}$ feet in depth, with a 16-inch fire-opening.

ORCHARD TRIPOD STEPS

Steps specially designed for fruit-picking deserve mention. They are planned on what might be called the tripod principle. Two legs of the tripod carry the rungs, and one of these legs extends for $2\frac{1}{2}$ feet above the top of the rung portion, thus forming a handrail. The remaining leg of the tripod is a swing-leg fitted with a positive stop; this means that the use of rope to obtain steps security is not needed. The rungs are glued in with a weather-resistant glue. The steps are available in various sizes, the largest being about 10 feet high, and, with the handrail to support topmost use of the steps, fruit-picking or other operations with trees or hedges can be carried out up to a height of 14 feet above ground-level.

RUBBER AND METAL TREADS

Treads—for attachment to stone or wooden steps—made from aluminium but incorporating rubber pads for the tread surface are now being manufactured. Both the aluminium base and the rubber pad sections can be supplied in various colours, but the standard type has black rubber pads and a polished aluminium surface. Any length up to 12 feet is offered in four standard widths of from $1\frac{1}{2}$ to 6 $\frac{1}{2}$ inches. The treads can be provided with dowels for attaching them to stone; for attachment to wood they should be drilled and countersunk. When they become worn, the rubber pad sections can be replaced. If desired, the treads can be supplied with a steel base instead of the standard aluminium base.

EGG-TIMING À LA MODE

The traditional sand-glass egg-timer has been most attractively modernised in a European device now being distributed in this country. The two-section glass unit can be set in position against an adjustable stop according to whether a soft, medium, or hard boiling is required. When sufficient sand has run from the full section into the initially-empty section, the glass unit, which is centrally pivoted, turns round; this movement is enough to start a striker swinging against a bell in the base of the appliance, and the bell is rung several times. The appliance is manufactured in two models—one with its own base for standing, the other for wall-attachment.

MOTORISTS' TEA

A plug-in electric teapot operating from the battery supply of a car should appeal to week-end motorists, for its use obviates the need to carry petrol or spirit lamps. The teapot must be at least half-filled with water before the separate heating-unit is inserted through the special lid-opening. The heating-unit is lead-connected with the battery. It is stated that any competent garage will be able to fix the extension socket in a convenient dashboard position. When the teapot is boiling, the heater is switched off. On older cars it may be advisable to keep the engine running while the heater is on, so that the battery is conserved; on modern cars, however, the recharging rate is generally better and the teapot can be heated with the engine idle. The teapot is made of polished aluminium and holds $1\frac{1}{2}$ pints; it is supplied with 2 yards of flex, the heating-unit, and the socket for attachment to the car.

A RUBBER DUSTPAN

The use of rubber as a constructional material for making articles normally composed of hard and inflexible substances has been referred to several times recently here—e.g., rubber barrows, rubber pails, etc. This brief note draws attention to the fact that rubber dustpans are now on the market. They offer one valuable advantage, of course, in that they will not scratch furniture or paintwork. A second advantage is that their flexibility ensures tight contact with the floor even when the floor has uneven contours; dust is far more likely to be swept into the rubber dustpan than to slip into gaps caused by poor contact.

SCIENCE AT YOUR SERVICE

A LAWN-SPRINKLER

A new lawn-sprinkling appliance that is of simple design and very moderate cost should suit the full requirements of many private gardeners. The sprinkling-rose is held in a vertical position, so that the spray rises centrally and falls in circular pattern. The hose-connection is made at the side and at right angles. The sprinkler carries a deep spike which can be inserted into the lawn, so holding the sprinkler rigidly and in any desired position. Moving the position is a simple operation. Although there is no revolving mechanism as is often the case with larger sprinklers, this may not be a disadvantage; there is often a tendency for revolving models to leak at the site of placement and create over-wet conditions. This very cheap and sturdily-made appliance has no moving-parts to become a possible source of trouble. Given a fairly good water-pressure, the coverage for an ordinary-sized lawn should be easily obtained from a few positionings.

HISTORICAL COLOURS

Colours, like manners, have a history of change, and even in our modern, technical world some of the ancient colours used in decorative work are as difficult to reproduce as they are notable. For the benefit of architects, decorative artists, and genuine students of colour, one of the oldest and best-known English paint companies has published a book upon this subject. A large number of historical colours are reproduced—indeed, almost half the pages carry inset panels accurately reproducing them. The history of each colour and its association with art or manufacturing are given. Starting with the colours of ancient Egypt, the book goes on to deal with oriental colours, Tyrian purple and other Roman colours, the Medici blues and greens, the pastel-like verdure tapestry shades, and then the later colour developments, such as Worcester blue, Wedgwood colours, delftware colours, etc. Not only has a vast amount of study been devoted to compiling this book and index of colours, but the company con-

cerned has also studied the problem of faithfully reproducing these historical colours and shades with to-day's materials. A list of types of paint in which most of these colours can be reproduced is given as an appendix. The book, which must be unique, is available to people with *bona fide* interests in the subject of decoration or colour, though it can, of course, have only limited circulation.

ELECTRIC-FENCE TESTER

To check whether an electric-fence is in operation or, less pleasantly still, to check its shock-intensity by catching hold of the fence is both crude and unnecessary. Lighting devices can be inserted in the circuit, but this method merely checks current-flow and gives no guidance as to shock-intensity. A well-known agricultural machinery company has now introduced an electric-fence shock-tester. It is a pocket-sized plastics-made cylinder carrying at one end an adjustable wheel and a small hook, and at the opposite end a flexible cable leads to an earthing spike. The spike is pushed into the ground and the hook is placed upon the fence-line. The cylinder wheel is then turned until a neon-light built into the unit ceases to flash. The reading then given by this wheel, against a scale marked on the cylinder-case, gives an accurate measure of the shock-intensity. It might be mentioned here that shock-intensity of electric-fences can vary considerably, as it is not only controlled by the supply but also by the condition of insulation. A subsidiary feature of this useful appliance is that it may also be used to short out the fence so that adjustments can be made without switching the current off.

INSULATED PLIERS

A British tool-making company offers combination pliers whose handles or legs are insulated up to 5000 volts. As these pliers are no dearer than any good quality and normal type of pliers, they deserve the attention of anyone who at times may carry out work close to power-supply cables. They should be indispensable, for example, in the tool-kit of works engineers, builders, etc.

TO CORRESPONDENTS who wish fuller information regarding new inventions, publications, etc. mentioned here, addresses will be furnished, when possible, if (and only if) a stamped addressed envelope or postcard for a reply be sent to the Editor, *Chambers's Journal*, 11 Thistle Street, Edinburgh. To avoid delays, requests of this kind from correspondents abroad will be forwarded to the manufacturer or agent if stamps, postal orders, or imperial or international reply coupons are enclosed for the purpose. The issue of the *Journal* and the heading of the paragraph in which the object of inquiry is described should be given in order to facilitate reference.

The Blue of the Gentian

IF blue is mentioned in connection with flowers, the gardener's mind immediately turns to gentians, and yet it is as well to remember that the New Zealand species is white, and there are gentians in golden-yellow and in scarlet and gold. I would agree, however, that the gentian is world supreme in producing the most wonderful blooms. The flowering season is prolonged over six months, starting in April or May and not finishing until late October. Each species has to be considered individually as regards planting and growth, for individual requirements are so different.

Generally speaking, however, unless a definite species is known to require it, lime can happily be left out of the soil mixture. A tip to remember is that the gentians which are easiest to grow are lime-haters, while the Asiatic species thrive on lime. You will find, too, that the plants like to grow in conditions similar to that of the country of their origin. Thus the New Zealand gentians will need good drainage, and they usually do best in the upper parts of a rockery. The North American and Japanese species grow naturally in bog or woodland and, therefore, will need plenty of heat and moisture.

You will probably be more interested, however, in the easy-to-grow gentians, and so I will mention a few, such as *G. acaulis*, which has grown happily in this country now for two hundred years or so. It has a curious, somewhat frustrating habit of growing well and yet not flowering, but, when it does bloom, it is truly magnificent and is ideal for an edging along paths. You will find it necessary to lift it every four years for splitting and replanting, and it requires perfect drainage although needing moisture. Plant it in a spot free from lime, where it can get plenty of sunshine and air. I have found that it particularly likes a fairly heavy soil and that it can be expected to flower during the late spring and early summer.

Another lover of lime-free soil is the New Zealand *G. belidifolia*, which flowers during June and July and grows to about 6 inches high. It is as well to add a little peat to the soil, and, as the plant has a long stiff root, a

deep soil is essential. Provided the drainage is good and there is sufficient moisture, the *G. belidifolia* will be able to put up a brave show even through the very bad winters. The *G. dahurica* is a great sun-lover and needs perfect drainage. A native of Asia Minor, it is in full bloom in August, bearing pale purplish-blue flowers. It is quite easy to grow and quite often produces more than one flower at the top of each stem.

For a very easy grower have *G. lagodechiana*, which is at its best in late August and for the greater part of September. If your soil retains moisture and you can plant in a spot in the rock-garden which is particularly moist and with a fair share of sun, then you are certain of a wonderful show of these deep-blue flowers, with paler exteriors and greenish spots within the tube. It grows about 15 inches high and comes to us from the Caucasus.

If you want a species that flowers towards the end of July and will be in full bloom in August, then you should try *G. hexaphylla*. The leaves are very small and are arranged in whorls of six, similar to that of the cushion saxifrage. Again, this is a lime-hater and, needless to say, plenty of sun will be much appreciated. The plant is exquisite in its gracefulness, and is certainly worth using. Another species which will bloom at the end of July is *G. sikkimensis*. It forms a mass of shoots up to 6 inches long and bears flowers of the traditional blue, with a white tip.

The picture would not be complete unless mention were made of the *G. sino-ornata*, which is a firm favourite with me. Indeed, I consider it one of the finest gentians introduced to these islands, with its flowers which are royal blue and on the outside have broad bands of purplish-blue interspaced with yellow-green markings. It ends the season well, flowering through September and into November if the weather is right. Again, it does not like lime and needs a rich moist soil.

I shall be glad to help readers with their gardening problems. Write to me through the Editor, kindly enclosing a stamped addressed envelope for the reply.

W. E. SHEWELL-COOPER, M.B.E., N.D.H.

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CHAMBERS'S WORLD GAZETTEER CROSSWORD

ACROSS

- 8 Deposited by rivers (8).
- 9 Mediaeval architecture characterises this Flemish city (6).
- 10 Islands in the Aegean (or in garden implements) (8).
- 12 The Nevada one blossom in the news, but not as a rose (6).
- 14 Akeman and Dere are two of these (two words: 5,5).
- 18 Wine sparkles in this city of Piedmont (4).
- 21 Makes the air buzz in Naples (7).
- 22 See 14 down.
- 23 At this French village the Huguenots won a noted victory (4).
- 25 May mean no ease for Actinia (two words: 3, 7).
- 28 Resort near Mossel Bay (6).
- 30 Confused serial about abbreviated company in Spanish palace (8).
- 32 Seaport of Honahu (6).
- 33 Soldier from 'down under' loses a hundred after card game in Portugal (8).

DOWN

- 1 Italianised form of Haleh (6).
- 2 Pelt of the coyppu (6).
- 3 'Peccavi' said the general who took this Indian territory (4).
- 4 High summer pastures to the Swiss, mountains to us (4).
- 5 From here, we learn, Leander (sad boy) swam to meet Hero (6).
- 6 Add two vowels to U.S.S.R., but the result's much the same (6).
- 7 May be New or Old, in Aberdeenshire (4).
- 11 Vulcanised export of Malaya (7).
- 13 Troublesome Adriatic seaport (7).
- 14 And 22 across: Semi-octogenarians with wind up? (two words: 7,7).
- 15 Said to be the deepest loch in Britain (5).
- 16 This party gave Europe a nasty time (4).

Three prizes to the value of twenty-five shillings each will be awarded to the senders of the first correct solutions opened.

Entries must arrive not later than the 15th July.

Envelopes should be clearly marked CROSSWORD in the top left-hand corner. The closing date unavoidably confines the entry to those resident in Great Britain, N. Ireland and Eire.

DOWN (contd.)

- 17 Owing to these in World War 2, 16 down régime collapsed (7).
- 19 Irish town (5).
- 20 Irish river (4).
- 24 River renowned in ballad, flowing through St. Mary's Loch (6).
- 25 A naval port of Italy (6).
- 26 Chief river of Australia (6).
- 27 Native name for African lake (6).
- 29 Biblical country reverses fashion (4).
- 30 Important river of northern Europe (4).
- 31 Staple British export—once! (4).

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